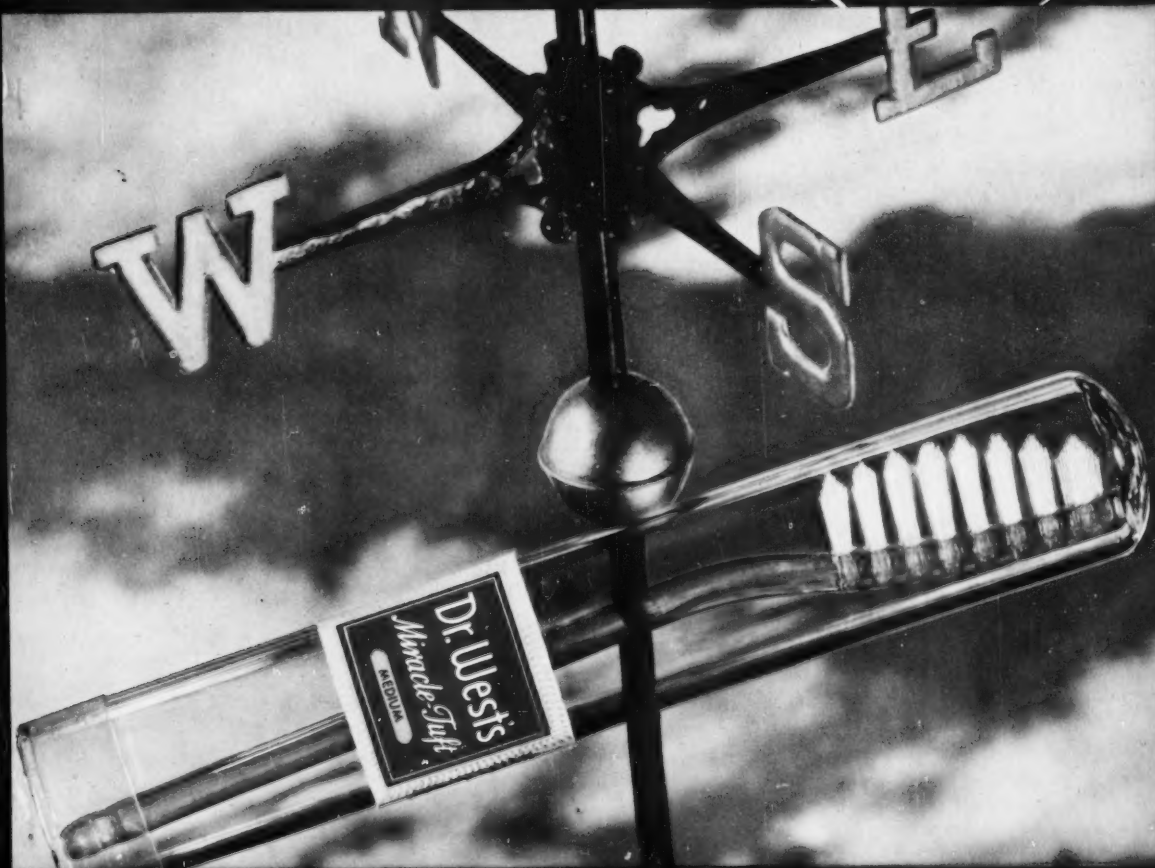


Modern packaging



Nominated for *Packaging's Hall of Fame*® Story on Page 88

August 1953

LEVER BROTHERS

simply
adds
water to

**AQUA-
FLAKES...**



AQUA-FLAKES®—National's dehydrated dextrin adhesive—have cut glue costs 25% on the "Surf," "Breeze," "Rinso," "Rinso Detergent," "Silverdust," and "Lux" carton sealing lines at a number of Lever Brothers' plants.

AQUA-FLAKES are supplied dry. To get a quality adhesive with lightning tack and beautiful filming properties, you just add tap water to AQUA-FLAKES. Preparation time? Minutes instead of hours. No heating or cooling necessary. You also eliminate "lumpy" mixtures and complicated, time-wasting formulas.

Lever Brothers has found that AQUA-FLAKES give good mileage, machine well, yet cost much less than the glue they were using.

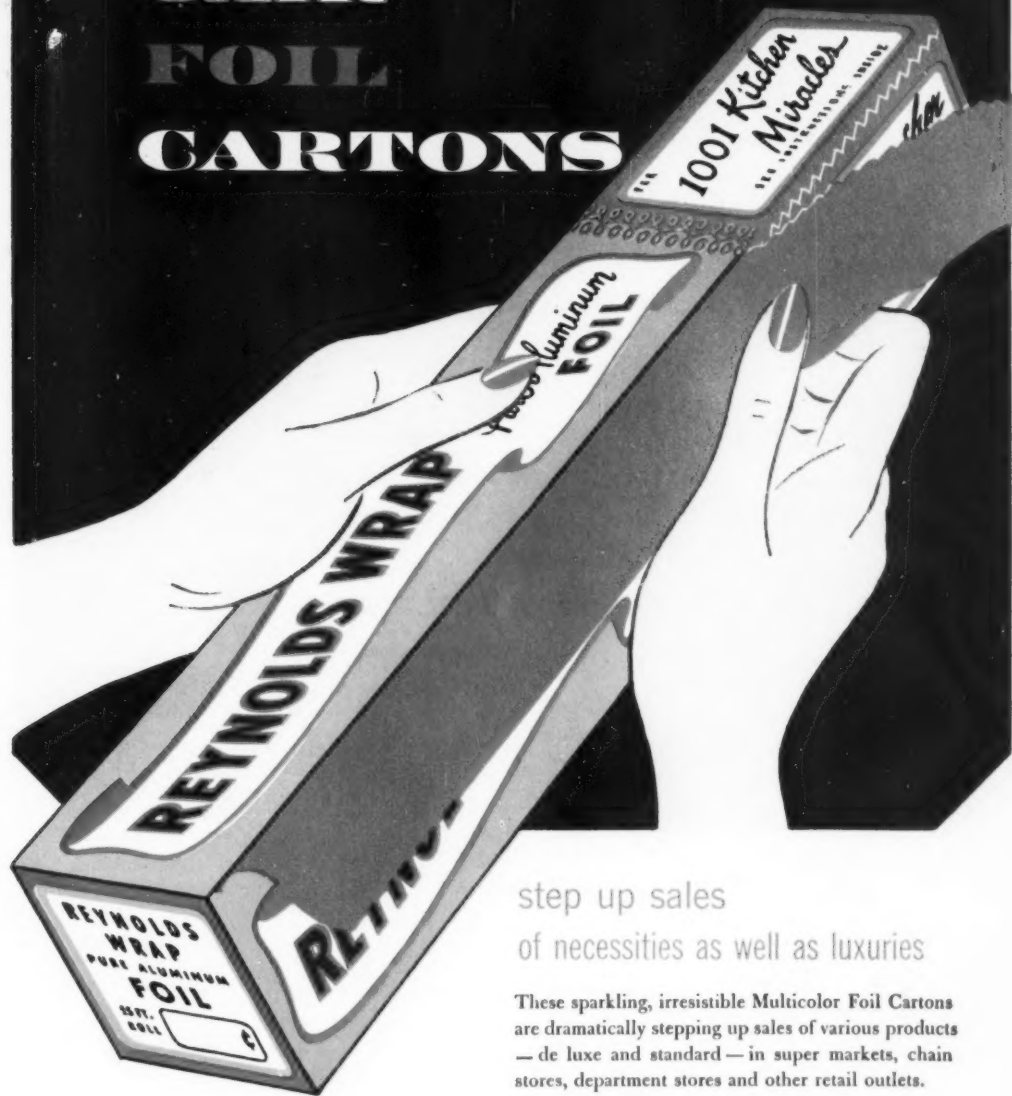
Test AQUA-FLAKES yourself—at your desk! All you need is a measuring glass, a stirring rod, and some water. We'll supply an AQUA-FLAKES sample.

**CUTS
GLUE
COSTS
25%**



270 Madison Ave., NEW YORK 16; 3641 So. Washtenaw Ave., CHICAGO 32; 735 Battery St., SAN FRANCISCO 11; and other principal cities. In CANADA: National Adhesives (Canada) Ltd., TORONTO and MONTREAL.

GAIR FOIL CARTONS



step up sales
of necessities as well as luxuries

These sparkling, irresistible Multicolor Foil Cartons are dramatically stepping up sales of various products — de luxe and standard — in super markets, chain stores, department stores and other retail outlets.

Gair-Reynolds Foil Cartons are now style leaders in folding cartons.

Write for brochure on Gair Cartons



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SHIPPING CONTAINERS

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK • TORONTO

AUGUST 1953

Modern packaging

Vol. 26 No. 12 August 1953

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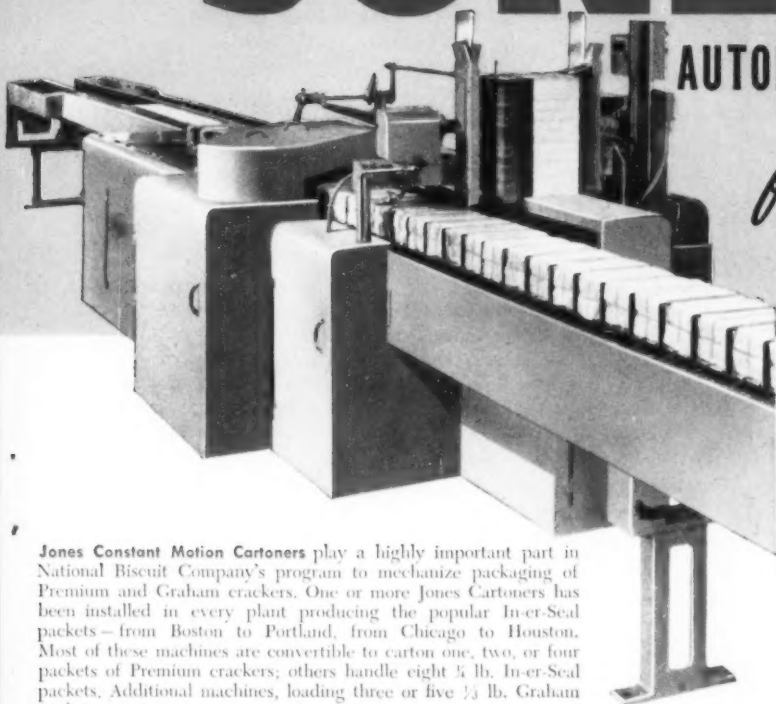
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JONES

AUTOMATIC CARTONING

for



Jones Constant Motion Cartoners play a highly important part in National Biscuit Company's program to mechanize packaging of Premium and Graham crackers. One or more Jones Cartoners has been installed in every plant producing the popular In-er-Seal packets—from Boston to Portland, from Chicago to Houston. Most of these machines are convertible to carton one, two, or four packets of Premium crackers; others handle eight $\frac{1}{4}$ lb. In-er-Seal packets. Additional machines, loading three or five $\frac{1}{3}$ lb. Graham packets, are in use.

SEQUENCE OF OPERATIONS:

1. Output of four wrapping machines is transferred automatically or manually into conveyor buckets of the cartoner.
2. After automatic check for complete count, machine feeds and opens carton and gradually inserts crackers.
3. Intaglio glue rolls (fed by circulating glue pump) apply a strip of glue to each edge of closing flap. Another strip of glue is applied to tuck flap before final closing.
4. Carton is discharged through compression belts, producing a tamper-proof package, sealed on all exposed edges, yet reclosable by the customer.

SPEED: Fifty cartons per minute on the 2 lb. size, up to 160 cartons per minute on the 3- $\frac{3}{4}$ oz. and 7- $\frac{1}{2}$ oz. sizes.

Jones Cartoners are designed on the premise that "the oven never stops." Jones' basic methods of feeding, opening, and closing cartons, and positive, gentle handling of the crackers, assure that the cartoner will keep pace with the oven—with speed to spare.

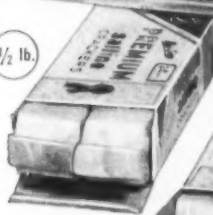
Spherical, self-aligning rod ends—anti-friction bearings on rotary and reciprocating parts (each carrying its own reservoir of lubricant)—convenient cluster lubrication system for other parts—rugged construction—cast iron frame—generously oversize shafts and chains—automatic overload protection at critical points, with signal light panel—quick stopping, variable torque electric clutch—remote control variable speed drive with tachometer—quick convertibility from one size to another—these and many other refinements guarantee peak efficiency and freedom from costly down-time, maintenance, and repair.

Whatever the carton style, the geometric arrangement, size and number of unit packs, a Jones Cartoner will give *you* the lowest cartoning cost. May we discuss it with you?

2 lb.



$\frac{1}{2}$ lb.



1 lb.



$\frac{1}{4}$ lb.



1 lb.

GRAHAM



R. A. JONES & COMPANY, INC.

Cartoning Machines—Soap Presses

P. O. BOX 2055, CINCINNATI, OHIO

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Cleveland 14, 815 Superior Ave.
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MODERN PACKAGING is regularly
indexed in *Industrial Arts Index*.



Sense from the census

OUT OF ALL the fascinating population statistics that our sociologists have been pouring out in recent months, two facts stand out boldly in significance to packaging:

Families are getting smaller. The average household today is only 3.33 persons. Since 1930 the number of families consisting of three persons or less has increased by 70%; since 1940 the increase has been 30%. Today, out of 43½ million American households, there are 10 million families of three persons; 12½ million families of two persons and 4 million "live-alones." Better than six out of 10 families are composed of three persons or less.

There are more working wives. In 1930 less than 12% of married women held jobs; today the percentage is close to 27%. In numbers, working wives have more than tripled in 20 years. There were 3,071,302 of them in 1930 and 10,182,000 in 1950.

As far as consumer desires are concerned, the packaging lessons are clear. The trend to ever-smaller package units is going to continue. The busy working housewife is going to place an ever higher premium on convenience.

The "three little people" of the average American family, a recent Du Pont study concludes, are the most important people in the world for packagers, because they now represent the biggest segment of the world's biggest market.

Yet Du Pont's researchers also found that packaging generally has not shifted with the times. Too many are still pushing the "big economy size," which does not represent economy at all if it results in leftovers that spoil and does not offer convenience if it leaves cupboards cluttered with half-empty packages.

Fortunately, smaller units of packaging seem to be just as popular with large households as with small ones and the fractional and multiple packages are proved sales builders. Du Pont found, for example, that 93% of consumers having experience with fractional packaging of saltines liked the idea and that 89% of those who had tried individual-service multiple packages of cereals approved the method.

Whatever the answer may be in your particular case, you will do well to think of the three little people.

The Editors

MODERN PACKAGING



LET'S TAKE THE BULL BY THE HORNS...

and bring your packaging up
to date. Cracker barrel methods
don't bring results
in today's super-marketing.

Your wrap must be fully
charged with sales appeal, must sell itself.

DANIELS knows how to make them that way.



We invite Inquiries

Daniels

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There is a **DANIELS** product to fit your needs printed in sheets and rolls... transparent glossine • snowdrift glossine • superkleer transparent glossine • lord pak • bacon pak • ham pak grease-proof • sylvania cellophane • laminated papers • special "Heat-Seal" papers.

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Denver, Colorado . . Dallas, Texas . . Los Angeles, California

creators • designers • multicolor printers



"Genius at Work"

Few buyers of packaging materials realize the extent of KVP art facilities. The staff of 22 men and women are specialists in creative design whose experience totals 216 years.

"Genius," someone once said, "is the infinite capacity for taking pains." KVP artists measure up to that description. No detail is too small, no step is slighted in the long process from idea to printed wrapper.

These men are *more* than food package designers. They also work closely with KVP paper technicians and printers to make sure the completed

package will provide proper food protection *plus* powerful sales appeal.

Keep this large, experienced KVP art staff in mind when you consider package improvements. If you're interested now, write for complete information — without obligation.

KALAMAZOO VEGETABLE PARCHMENT COMPANY

Parchment, Kalamazoo, Michigan

BRANCH AT DEVON, PA. ASSOCIATED COMPANIES: KVP CO. OF TEXAS, HOUSTON, TEXAS — HARVEY PAPER PRODUCTS CO., STURGIS, MICH. — KVP CO. LTD., ESPANOLA, ONT. — APPLEFORD PAPER PRODUCTS LTD., HAMILTON, ONT.; MONTREAL, QUE.

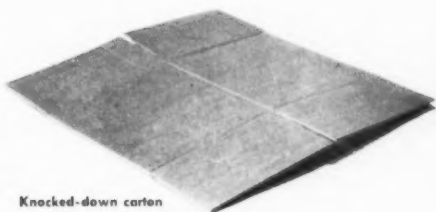
The World's Model Paper Mill



FOOD PAPERS — For Protection and Sales Appeal

Another new development using

B. F. Goodrich Chemical raw materials



Knocked-down carton



Geon polyblend liner

B. F. Goodrich Chemical Company does not make this liner. We supply the Geon polyblend only.

THE CARTON THAT ACTS LIKE A DRUM!

Geon vinyl plastic liner cuts cost of packaging lard, oils, pharmaceuticals

HERE'S a new combination that cuts packaging costs, eliminates waste and saves storage space—a paper board carton with a removable liner made of Geon polyblend.

The Geon liner makes it possible to use cartons instead of expensive metal containers for packaging many products. Because of Geon, the liner resists oils, greases and many chemicals. Easily sealed, it does not permit the contents to seep or migrate through the liner—does not contaminate the contents or the carton. It is abrasion-resistant, odor-proof and flexible at high or low temperatures.

And look at this extra saving! The knocked-down cartons and the liners are stored flat until needed—a big reduction in storage space. The liners are easily inserted—can be made to fit practically any shape container.

Helping find ways for Geon materials to develop or improve more saleable products are jobs that we do regularly. Versatile Geon comes in readily adaptable forms—as resins, plastic granules and liquid latex. These forms may be processed by calendering, extruding, coating or molding . . . can be compounded in a wide range of attractive colors. We'll help

you select the form best suited to your needs. For technical information, please write Dept. GE-8, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario, Cable address: Goodchemco.



GEON RESINS • GOOD-RITE PLASTICIZERS . . . the ideal team to make products easier, better and more saleable
GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers • HARMON colors

PROTECTED
by **Riegel**



TRIPLE LAMINATE OF FOIL, POLYETHYLENE AND GLASSINE FOR VERY HIGH MOISTURE VAPOR PROTECTION. MADE, PRINTED AND COATED BY RIEGEL. CONTAINS 2 PACKAGES: EGG-WHITE MIX IN GLASSINE FOIL LAMINATE, HEAT-SEAL POLYETHYLENE-COATED; FLOUR MIX IN POLYETHYLENE-COATED SPECIAL GLASSINE. BOTH CARRY PRINTED INSTRUCTIONS.

More than 600 Riegel Papers are now proving their value for many of the nation's best-selling brands. It is the greatest variety of packaging papers available from any one source.

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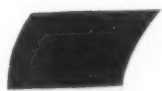
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THE
BLUE
TAB



marks the "tops in tape"

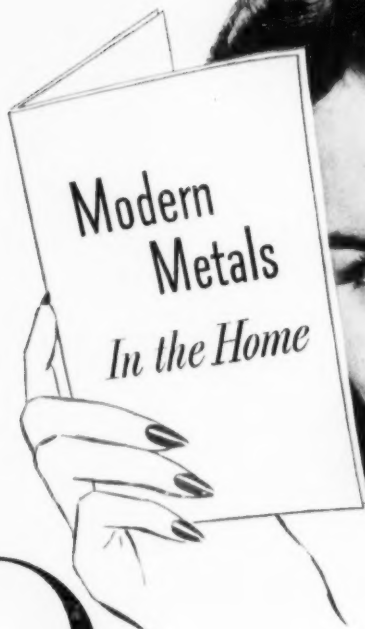


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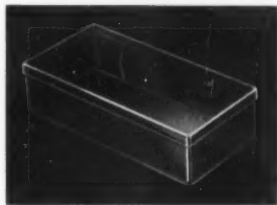
in this Tri-State Rigid Plastic Box

DEVOR & RAYNOLDS COMPANY INC., uses Tri-State Rigid Plastic Boxes to make an appropriately artistic package for their "Painting for Fun" oil color outfits. In its own crystal-clear plastic display case, contents are attractively displayed but never soiled. Packaging costs are down, too, because outside labeling is not needed and inserting of die-cut chip board to hold contents is simple and swift.

Amateur painters and hobbyists appreciate the light weight and durability of these boxes. The plastic lid makes an excellent palette, and when empty, the box becomes a handy container for brushes, crayons, etc.

If your product needs the package that will spark its appearance . . . keep it clean . . . simplify packaging operations, call Tri-State and inspect the world's largest assortment of rigid plastic boxes.

DEVOR & RAYNOLDS PAINTS A PORTRAIT OF GOOD PACKAGING IN OUR STOCK BOX NO. 82 (6 7/8" x 3 1/2" x 1 1/2"). FROM OUR STOCK SHAPES AND SIZES, OR MOLDED TO YOUR SPECIFICATIONS, THERE'S A TRI-STATE RIGID PLASTIC BOX TO FIT YOUR PRODUCT. BUILD YOUR SALES AND SIMPLIFY YOUR PACKAGING OPERATIONS.



The best Rigid Plastic Boxes are Injection Molded by
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AUGUST 1953

11



*If it's Borden's
Packaging...it's got
to be good!*

For Borden's famous grated cheeses, the packages must have *shelf-appeal* that commands display. They must have *eye-appeal* that makes the shopper stop and reach. And they must also provide *utmost protection* against moisture.

Aluminum foil is the only material that can meet these requirements. And Reynolds Aluminum Foil, color-gravure printed by Reynolds advanced techniques, is what gives Borden's grated cheese packages their extraordinary brilliance and richness...together with moistureproof protection. Borden's canister wraps are a foil-and-paper lamination especially developed by Reynolds. Similar Reynolds Wraps are scoring impressive sales successes in cleansers, baking powder, etc.

Famous-brand cookies, dried fruits, dehydrated soups, etc., use the heat-sealed protection of Reyseal®.

Butter, margarine and many types of cheese use still other Reynolds-developed foil materials.

Whatever your requirements, Reynolds complete packaging service can meet them...adapting foil's supreme protection to your specific needs...making the most of foil's supreme eye-appeal. Call the nearest Reynolds Sales Office. Or write to **Reynolds Metals Company**, General Sales Office, Louisville 1, Kentucky.

*Reg. U. S. Pat. Off.

Millions use REYNOLDS WRAP aluminum "packaging" at home. They look for and demand it on the products they buy!



Pioneers in
Aluminum
Foil
Packaging

REYNOLDS ALUMINUM

MR. PEEPERS returns September 13th on NBC-TV

Borden's

Borden's

**Grated
American Cheese
Product**

SUGGESTIONS FOR BEST USE

Add Borden's Grated American Cheese Product to macaroni or spaghetti for baking, and to all au gratin dishes, to obtain the delicious flavor of sharp cheddar cheese. Use for making cheese sauces, cheese flavored doughs, and tasty casserole dishes from leftovers.

American Cheddar cheese, aged at least 60 days, and then dried, grated and carefully combined with non-fat dry milk solids, salt, sodium citrate and vegetable coloring.

Borden's

Borden's

**GRATED
Parmesan and
Romano**



CHEESE

For Tasty Cheese Dishes:

Borden's Parmesan & Romano cheese is designed for sprinkling over hot dishes, such as spaghetti and soups, as they are served.

JOIN THE "GREATEST SALES SHOW ON EARTH"!

Another Biner-Ellison First!

- ✓ Unscrambles
 - ✓ Air Cleans
 - ✓ Single Files
- Fully Guaranteed**

**Now with positive
air cleaning**



Patent applied for

THE BINER-ELLISON

"FEEDOMATIC UNSCRAMBLER"

The only machine of its kind that simultaneously cleans and unscrambles

It's new! It's efficient! The reliable "Feedomatic Unscrambler" has speedily earned a fine reputation in the packaging industry.

The new feature is a foolproof attachment which thoroughly air cleans each container before it is single filed onto the conveyor. High pressure air and suction remove dust, lint, and other foreign matter.

With the "Feedomatic Unscrambler" speeds up to 150 per minute on round, oval, and rectangular containers can be obtained with ease.

Write for full details about this new model of the "Feedomatic Unscrambler." Biner-Ellison also manufactures popular "Labelmatic" high speed bottle labelers and "Filabelmatic" combination labelers and fillers.

Look at these major advantages . . .

- Silent operation, even with glass.
- Gentle action. No marring or scratching.
- Rapidly adjustable dividers. Changeovers take minutes.
- Take-off conveyor with right or left.
- Can be used 4, 6, or 8 wide.
- Large inventory of containers on machine.
- Available with $3\frac{1}{4}$ or $4\frac{1}{2}$ conveyor chains.
- Variable speeds from 30 to 150 per minute.

This new "Feedomatic Unscrambler"—our Model "Triplematic"—will unscramble, air clean, and fill—all in one simultaneous operation.

.....BINER-ELLISON.....

MACHINERY COMPANY

1101 N. Main St. Los Angeles 12, Cal.

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Martin O. Tiemann
St. Louis, Mo.
Charles W. Miller
Hayward, California
Packaging Equipment Co.
Long Island City, N. Y.
G. R. Williams Sales
Ypsilanti, Michigan

FLIP-CLOSE displays your merchandise beautifully on shelf or counter, yet protects it from soiling and musing. Your brand is printed in Quanta-coded colors. Customers can "feel inspect" contents without damaging bag. Markdowns due to shopworn goods practically eliminated. FLIP-CLOSE builds profits as well as sales.

Experience Proves Bemis FLIP-CLOSE Bag "Finest Sales-Building Package"

**Garments in New Transparent Bag Sell Faster . . .
Stores Have Trouble Keeping Adequate Stock**

Bemis FLIP-CLOSE, the new polyethylene (transparent plastic) package with the built-in closure (patent applied for), is ready to join your sales force.

FLIP-CLOSE is a potent sales-builder for a wide range of merchandise—clothing, domestics, paper products, produce, etc. The enthusiastic report from Mr. F. C. Johnson, vice-president in charge of sales of Strutwear, Inc., widely known manufacturer of nationally distributed women's wear, is typical.

FLIP-CLOSE may be the answer to many of the problems facing you and your customers. Get the complete story. Send the coupon today for detailed information and sample FLIP-CLOSE Bag.

Mr. F. C. Johnson

Consumers want FLIP-CLOSE bags for their wonderful re-use value. A housewife can't get enough of them. She uses them in the refrigerator, for picnic or school lunches, for garments and shoes when traveling, for diapers, for bathing suits—scores of uses. Bemis polyethylene contains no plasticizers and does not deteriorate with age.

Packaging in FLIP-CLOSE is fast, easy, economical. Insert the merchandise—flip the cap into place. Takes minimum working space and NO machinery or special installation. Workers like FLIP-CLOSE. So does your cost accounting manager.

MADE IN
UNITED STATES
OF AMERICA



STRUTWEAR INC.

1810 SOUTH SIXTH STREET MINNEAPOLIS 15, MINN.

Bemis Bro. Bag Company
820 4th Street, South
Minneapolis 15, Minn.

Gentlemen:

Six months' experience in packaging Strutwear gowns, pajamas and bodysuits in Bemis Flip-Close polyethylene bags proves it is the finest sales-making package we have ever seen. Everybody is enthusiastic about Flip-Close, from the girls packing the garments through the shipping clerks, our salesmen, our customers and the ultimate consumers.

The real proof, of course, is that retail stores are having exceptional results selling our garments in the new package and they are having trouble keeping the proper stock on display. Stores say the bags make wonderful shelf and counter displays and the transparent plastic shows the garments without soiling or smearing. This, of course, practically eliminates markdowns due to shopworn merchandise. The easy opening and reclosing is a great feature, too.

Consumers feel they are getting a bonus value because the bag has so many re-uses— as a garment bag, diaper bag, shoe bag, refrigerator bag, etc.

Congratulations to Bemis on development of Flip-Close. Be are congratulating ourselves on being among the first to use it.

Sincerely,

F. C. JOHNSON
Vice President
In Charge of Sales

BEMIS BRO. BAG CO.
408 Pine Street, Box 49, St. Louis 2, Mo.

Send promptly sample FLIP-CLOSE Bag and information
about its use for _____ (PRODUCT)

Your Name _____

Firm _____

Address _____

City, Zone, State. _____



BEMIS BRO. BAG CO.

General Offices—St. Louis 2, Mo. • Sales Offices in Principal Cities

six in one—

A Good Idea!



Overwrap of Sylvania Cellophane with printed cello tape makes this a fast-selling 6-pack.

**Make the package
more persuasive**

with **SYLVANIA
CELLOPHANE**

Multi-unit packages like this walk off self-service shelves faster when wrapped in durable, eye-catching Sylvania Cellophane. Individual units show clearly through overwrap. This pack supplies its own stiffness—requires no backing board. To strengthen the appeal of packaged confections, wrap them in Sylvania Cellophane. It heat-seals quickly and completely—may be attractively imprinted—provides protection from handling, humidity, temperature changes. Sylvania Division, American Viscose Corporation, 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

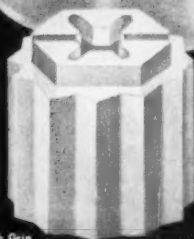
SYLVANIA DIVISION, AMERICAN VISCOSÉ CORPORATION



An Ever Growing Range for Your Ever Growing Uses

MILLS PLASTIC® Bottles

GALLON SIZE →
"CYLINDER"



Gallon Wrench Grip Closure

More and more firms are discovering that MILLS-PLASTIC unbreakable bottles serve their needs far better than any other bottles. MILLSPLASTIC leak-proof containers now meet daily use in packages for cosmetics, acids, photosensitive chemicals, hygroscopic materials. Our growing line of standard bottles and expanding scope of custom work is the direct answer to these widening needs—yours among them.

STANDARD BOTTLES—Our history-making gallon sized bottle and precision engineered closure are the largest in our standard line which also includes Mills "Cylinder" in 2-4-6-8 ounces; Mills "Oblong" in 2-4 ounces. Both styles are available in natural Polyethylene or your preferred color. Standard atomizers, closures and tubing are also available.

CUSTOM BOTTLES—We are currently meeting specialized needs by creating custom shaped bottles in an unprecedented variety of styles, sizes, colors. We also make special atomizers and closures.

Let us show you today how and why

MILLSPLASTIC bottles can best fill your needs

ELMER E. MILLS CORPORATION

2930 North Ashland Avenue • Chicago 13, Illinois

New York Representative: P. J. MURPHY
101 Park Ave. Murray Hill 3-6027

MFD. under patents 2,515,093—2,579,890—
2,579,591. Other pat. pend.



2 oz. "Cylinder"

8 oz. "Oblong"

2 oz. "Oblong"

4 oz. "Cylinder"

Standard Closures

REVOLUTIONARY, NEW

utility BAG-A-DISER *

THE BAG WITH THE BUILT-IN MERCHANDISER

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**SELF-SELLING
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FOR SAMPLING
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FOR COMBINING "TIE-IN"
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THE PERFECT SELF-SERVICE PROMOTIONAL PACKAGE



FOR SEALING PREMIUM
IN SEPARATE COMPARTMENT



FOR SELF-REDEMPTION COUPON,
CERTIFICATE, —AND MANY OTHER
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● AVAILABLE IN ALL SIZES, STYLES AND THICKNESSES—PLAIN OR PRINTED
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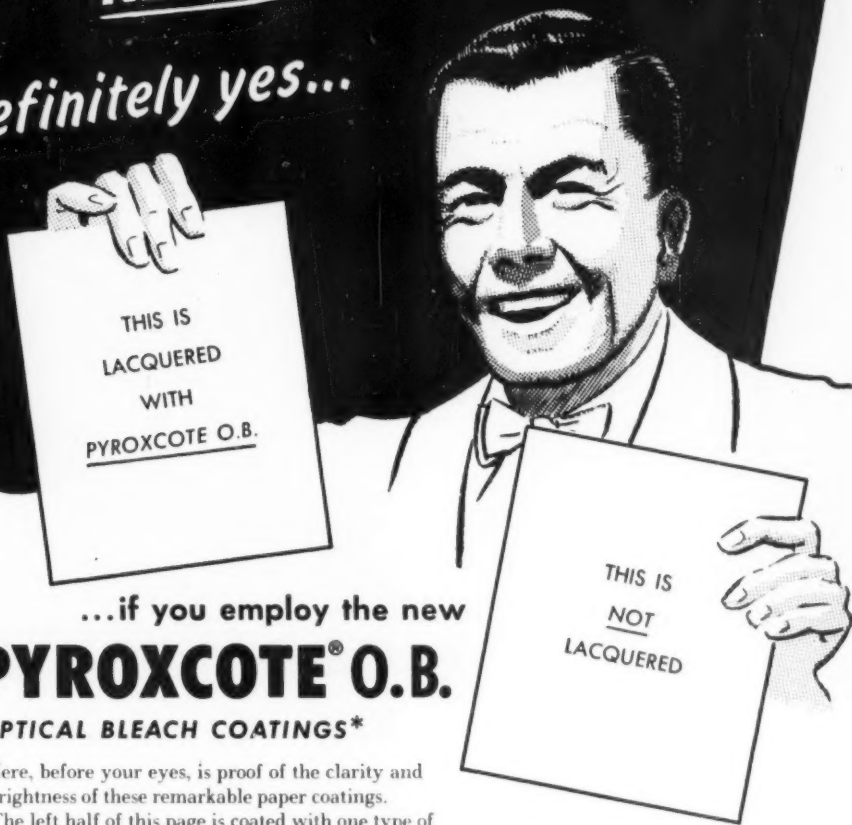
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Samples and information will be supplied to you, your printer, lithographer, carton maker. Write to...

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CHICAGO 32

**PAOLI,
PENNA.**

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*Patents Pending





Soft bottles that sell hard

These bottles are selling cosmetics—a job that demands the ultimate in packaging elegance. Their soft pastel colors, gracefully molded shapes, and detailed lettering are all elements that make them attractive to shoppers.

And, being molded of **BAKELITE** Polyethylene plastic, they have an additional quality—flexibility. They won't break or shatter if dropped. They won't leak; bottle contents may be squeezed out drop by drop or in a fine spray.

BAKELITE Polyethylene is easy to form and can be injection- or blow-molded in a variety of surface effects such as stippled, cross-hatched, and other pleasing textures. It is pleasant to the touch and most pleasing to the

eye. Polyethylene has excellent resistance to most acids, alkalis, and chemicals. In addition to the molded form, it has scores of packaging uses—as extruded film which can consequently be fabricated into bags, as sheeting which serves as chemically resistant drum liners, and as additives to wax for superior grades of wax papers for the wrapping of breads.

Why do we advertise a material that's in short supply? Because we know that it takes time to perfect your products of tomorrow . . . Because we have a material worthy of your consideration. Because, by the time you have completed your product development, substantial progress will have been made

under an extensive plant expansion program.

Bottle for Dorothy Gray Ltd. molded by Plax Corporation, West Hartford, Conn.; jar molded by Injection Molding Company, Kansas City, Mo.

BAKELITE
TRADE-MARK
POLYETHYLENE

TRADE MARK
BAKELITE COMPANY

A Division of
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In Canada:
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RADO PACKAGES® are the sort of things Sales Managers and Marketing Directors dream of but rarely find—practical, radically new, low-cost packages that ideally lend themselves to all-out consumer promotion.

RADO PACKAGES are *all plastic*. They are made automatically and continuously from a wide range of thermoplastic materials, both clear and opaque. The packages are made and filled simultaneously and can be of regular or irregular shape.

Equally suitable for liquids or pastes, RADO PACKAGES can even be produced in the form of unique capless collapsible tubes which have self-sealing apertures.

If you feel your product could benefit from this *new type of packaging* that is novel, practical, low cost and wonderfully responsive to consumer promotion, write to the Main Office of Technopol Laboratories, or to the Packaging Service Station nearest you for additional facts.



*U.S.A. Patent Nos. 2,517,027, 2,530,400

British Patent Nos. 599174, 599183

Patented in 36 other countries. Other patents pending.

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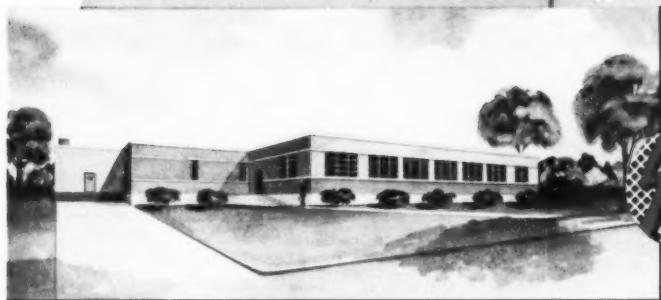
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Whether she's spreading on Blue Plate Peanut Butter or Mayonnaise, they all say "the more . . . the better."



More and more packers are coming to Crown for their closures. The Lug Caps on these Blue Plate Products point out a few of the many reasons. These closures apply smoothly on the line . . . seal dependably . . . are exceptionally well liked by customers. The bright, colorful lithography catches the eye . . . helps sales . . . and, by the way, notice how this manufacturer promotes the use of other products on the cap.

Contact your Crown Closure Representative . . . ask him to show you the many benefits Crown Closures offer you. Crown Cork & Seal Company, Baltimore 3, Maryland.

World's Largest Makers of Metal Closures.

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* BLUE PLATE PRODUCTS are manufactured by Blue Plate Foods, Inc., New Orleans, Atlanta and Richmond.

How packaging papers treated with Tenox combat rancidity

Eastman is now making available a technique for treating package papers with Tenox to provide protection against the development of rancidity.

Until recently, little could be done to combat the rapid development of rancidity in the thin film of oil which coats or is absorbed by the package paper from the enclosed food product. Becoming rancid, this thin film of oil imparts the unpleasant taste and odor of rancidity to the entire contents of the package.

Thus, the packaged food becomes a total loss even though the food itself may not be rancid.

Shelf life increased up to 3 times

The use of parchment, glassine or paperboard which has been treated with Tenox substantially increases the shelf life of such packaged foods as lard, butter, margarine, cereals, cake mixes, cookies and many other products.

How to treat papers with Tenox


Tenox is easily applied to papers by conventional methods. For parchment or glassine, an aqueous emulsion of Tenox can be applied along the drying rolls of a Fourdrinier machine. If the paper is calendered, the emulsion can be added with the dampening water. Paperboard can be treated by applying the Tenox emulsion in the water boxes on the calender rolls.

In all cases the concentration of the emulsion is adjusted to the "pick-up" of the paper to obtain the desired amount of the antioxidant.

For more information

For technical data describing the ease with which papers can be treated with Tenox, or for names of suppliers, write to Eastman Chemicals Products, Inc., Chemicals Division, Kingsport, Tennessee.

New treatment
retards oxygen-caused
rancidity here



Tenox

Eastman
Food Grade
Antioxidants

SALES OFFICES: **Eastman Chemical Products, Inc.**, Kingsport, Tenn.; New York—260 Madison Ave.; Framingham, Mass.—65 Concord St.; Cleveland—Terminal Tower Bldg.; Chicago—360 N. Michigan Ave.; St. Louis—Continental Bldg.; Houston—412 Main St. **West Coast: Wilson Meyer Co.**, San Francisco—333 Montgomery St.; Los Angeles—4800 District Blvd.; Portland—520 S. W. Sixth Ave.; Seattle—821 Second Ave. **Canada: P. N. Soden Co., Ltd.**, Montreal, Quebec—2143 St. Patrick St.



Boxes With Celanese* Acetate Windows Sell More and More Products

- Folding Window Boxes *sell* because they *tell* more about your product!
- Folding Window Boxes make *one-way* sales . . . *no* returns of damaged merchandise!
- Folding Window Boxes Are Economical!
- Folding Window Boxes ship *flat* . . . *set up* in a jiffy!

For crystal clear, non-cockling, shrink resistant, long life windows—specify Celanese acetate, the transparent film *that put the window box in business*. Celanese Corporation of America, Transparent Films Dept. 108-H, 290 Ferry Street, Newark 5, New Jersey.

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*Reg. U. S. Pat. Off.

Window boxes pictured are winners of 1953 Folding Box Association competition.

Celanese
PACKAGING FILMS

Symbol of Tin Plate Quality

**J&L
STEEL**

**Tin Plate Quality
you can depend upon**

J&L Tin Plate conforms consistently to the specifications of manufacturers who package their products in tin containers. Tin plating is very carefully controlled . . . and, exceptionally strict standards of inspection are maintained at all times.



**Tin Plate Service
to your measure**

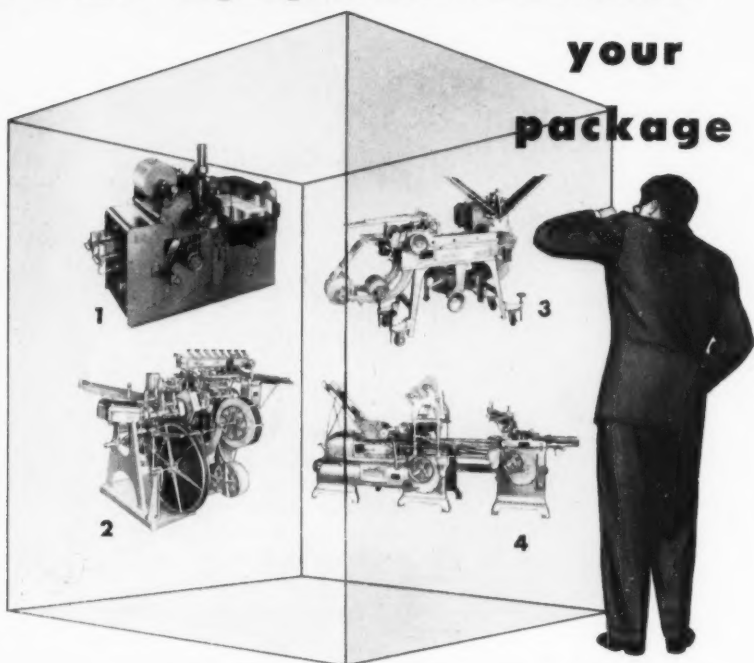
1. You receive J&L Tin Plate as you want it . . . when you want it.
2. Your stocks of J&L Tin Plate can be maintained at the levels that fit your needs.
3. You can have the assistance of J&L metallurgists to help solve your technical problems!



JONES & LAURUM STEEL CORPORATION
PITTSBURGH

Be sure of the equipment **BEHIND**

your package



Check first with

LYNCH

Savings *behind* the package can make the *best* actually cost less! And savings are large, in a long list of plants, where Lynch Packaging Machinery does the job.

For many years, Lynch has set the pace for packaging efficiency. It's been done through rigid standards of manufacture . . . continuous development to add *more* speed to packaging, reduce manpower needs and cut maintenance to a minimum. These are reasons why it pays to check *first* with Lynch. An experienced Lynch man is ready to help you. Just call or write.



- 1 Fully automatic Morpac Paper Packaging machine, especially designed for paper mills, converters, tablet manufacturers, publishers and printers. Wraps or bands pads, reams and other rectangular objects.
- 2 Wrap-O-Matic, fully automatic. Packages both conventional and irregularly shaped items at high speed. Used for packaging confections, bakery products, pencils, cigars and other products.
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- 4 Morpac Model T Print Forming and Wrapping Machine with K Cartoner. Insures continuous, high-speed wrapping and cartoning of butter, margarine and similar products.

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JOHNSTON FOIL for protective packaging—that seals in the
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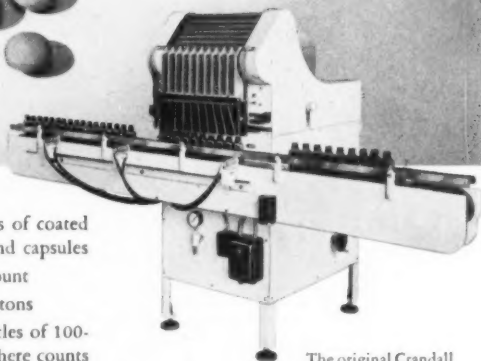
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Rubon Products, Kansas City, attractively package...and at the same time protect...their diversified line of treated dust cloths and mops in CHASE Polytex bags.

This handy package can be re-used as a refrigerator bag and the sharp brand printing keeps Rubon's name constantly before the customer.



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Pride

... AND SOMETHING BIGGER!

When popular choice makes certain products nationally famous, the manufacturers of those products have a right to feel proud.

And when so many of those manufacturers turn to Gardner for the folding cartons in which to package their products, we can't help feeling a bit proud, ourselves. But it's a *challenging* sort of pride, not the "pat yourself on the back" kind.

Here at Gardner we believe in never being quite satisfied with a good job. We feel an obligation to ourselves—and to our customers—to do even better, tomorrow, what we have gained recognition for doing well, today.

We think that's an important reason why you'll find so many of America's most famous products packaged in Gardner cartons.

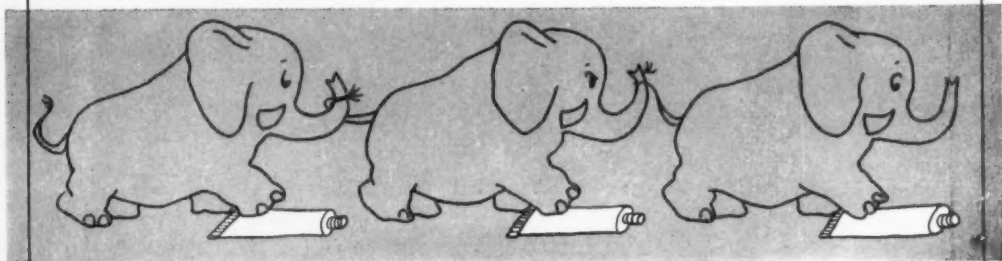
THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboards

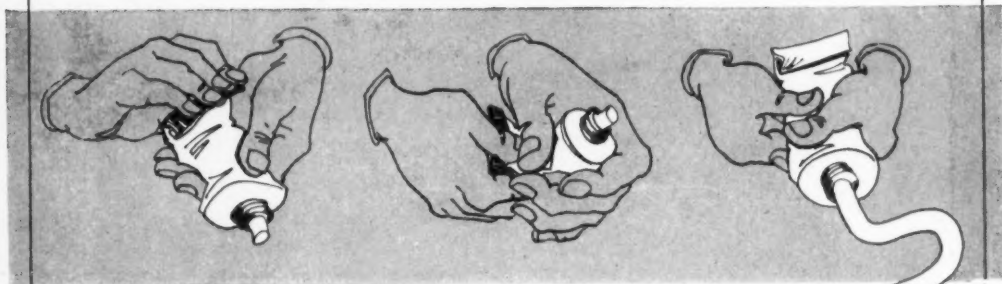
GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio; Lockland (Cincinnati), Ohio
Sales Offices in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

◀ Package design,
Package Designing Department
of Cannon Mills





We admit it...our tubes won't stand up under abuse like this...



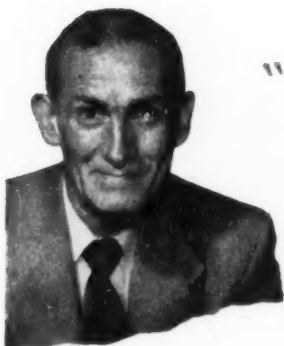
...but they most certainly will under abuse like this!

Sun Tube Corporation
Hillside, New Jersey

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Houston 19, Texas—R. P. Anderson Co., 5643 Overbrook Lane
Dallas 2, Texas—R. P. Anderson Co., 1122 Texas Bank Building

St. Paul 1, Minnesota—Alexander Seymour, 712 Pioneer Building
West Coast—Wm. J. Stoepler, 301 E. Colorado, Arcadia, California
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"Pro-Tex-Mor gives us the protection we need to deliver our products in perfect condition"...*

Reports Mr. A. B. Carlisle, Purchasing Agent
P. M. STEEL PRODUCTS, INC., Manufacturing Division, A. S. Aloe Co.

"We want to be sure that the fine finish we so carefully apply to our products is not damaged during shipment. That's why sheets of PRO-TEX-MOR Paper are used on all surfaces subject to scratches and abrasion." P. M. Steel Products, like many other leading firms throughout the country, is using Central States' PRO-TEX-MOR Paper for protection of fine metal and wood finishes.

PRO-TEX-MOR is specially treated and will not stain, stick, scratch or leave impression marks—and yet it is low in cost.



*T. M. Inc.

Here's the proof that Pro-Tex-Mor won't scratch fine finishes

(As Shown At The Packaging Exposition In Chicago.)

This "teeter-board" is a test device that showed the relative abrasion of the different types of paper generally used. On the left, Dry Waxed Kraft slides slowly down the inclined enameled steel surface. On the right, Plain Kraft has sufficient resistance that the weight barely moves at this angle. In the center, the weight with PRO-TEX-MOR Paper attached slides smoothly and quickly over the metal surface. The "lubricated" finish of PRO-TEX-MOR reduces resistance, so there is no abrasion or scratching.

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VISQUEEN®

For years ink just wouldn't stay on polyethylene. Expert printers tried many devices, but the ink chipped, cracked and rubbed off. "You can't print on poly" became a byword of the packaging industry.

Then chemists and engineers at VISKING developed and perfected **VISQUEEN "C"** to take and hold ink—to provide a printing surface

for brilliant printing that stays and stays and stays.

*There's no substitute for **VISQUEEN "C"**.* It's produced by a VISKING process. It loses none of its strength, toughness, durability because it's printable. So now you can have tough, durable polyethylene that takes ink and holds it!

Reasons why **VISQUEEN** is Superior for Flexible Packages


1. **VISQUEEN** gives complete protection—doesn't split, crack, shatter or run, won't curl, break or dry out under display lights.
2. **VISQUEEN** is readily adaptable to high-speed packaging lines. Doesn't stick, doesn't break easily under tension, can be sealed with heat, sewn, taped, tied or stapled.
3. **VISQUEEN** uniformity is unequalled. Yields more packages per pound of film.
4. **VISQUEEN** offers excellent product visibility to promote impulse sales.
5. **VISQUEEN** keeps inventory in saleable condition—increases shelf life—outlasts the product it protects.
6. **VISQUEEN** packages stack well. No rigid containers or separator sheets needed.
7. **VISQUEEN** locks out moisture or locks it in. Protects from dampness or drying out. Maintains moisture content you want for your product.
8. **VISQUEEN** will not freeze—remains soft and pliable to more than 70 degrees below zero.

VISQUEEN IS AVAILABLE CLEAR AND IN A WIDE RANGE OF COLORS.

Ink Adhesion

"C"

THE
INK
STAYS
ON



Important: VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. VISQUEEN film is produced by process of U. S. Patents No. 2461975 and 2632206. Only VISQUEEN has the benefit of research and technical experience of The Visking Corporation, pioneers in the development of pure polyethylene film.

This kind of printing stays on VISQUEEN "C". Brand Identification won't rub off.

VISQUEEN CONVERTERS ARE TOP EXPERTS IN PACKAGE DESIGN... ASK FOR THEIR HELP!

VisQueen

film... a product of

THE VISKING CORPORATION

World's Largest producers of polyethylene sheeting and tubing

Plastics Division, Terre Haute, Indiana

In Canada: Visking Limited, Lindsay, Ontario

Not only is **VISQUEEN** film a superior packaging material, but the converters who use it lead in design and manufacture, and are expert in solving tough packaging problems. They work with **VISQUEEN** technicians to give you their own superior skills and **VISKING's** acknowledged polyethylene leadership. If you desire, they can put factory specialists—able chemists and engineers—right into your plant to help you. This coupon will bring their assistance.

THE VISKING CORPORATION, BOX H8-1410, Plastics Division, Terre Haute, Indiana

Please send me names of VISQUEEN converters serving my area.

Name _____ Company _____

Address _____ City _____ Zone _____ State _____

AUGUST 1953

37



ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO
CORDIALLY SUGGESTS
THAT IF YOUR PRODUCTS
HAVE EYE AND APPETITE APPEAL
THE GLASS PACKAGE
WILL DO A BETTER SALES JOB FOR YOU
AND REQUESTS THE OPPORTUNITY
TO SHOW YOU
HOW WELL THEY CAN BE PACKED IN
ANCHORGLASS CONTAINERS
AND
PROTECTED BY THE RIGHT TYPE OF
ANCHOR CLOSURE



Safe, easy-to-handle carboy of Du Pont ALATHON* holds more...weighs less...cuts shipping costs

*It's another packaging improvement
made possible by the
outstanding properties of "Alathon"*

This new carboy offers greater utility and economy for the shipment and storage of corrosive chemicals. The inner container, molded of Du Pont "Alathon" polyethylene resin, has less than half the weight of conventional carboys. This means easier handling, lower shipping costs. The moldability of "Alathon" permits the square shape, which allows more capacity. The square shape also allows stacking for quick palletizing, and the fullest use of shipping and storage space.

"Alathon" has exceptional chemical resistance. It is tough and resilient... makes the carboy virtually unbreakable. "Alathon" is chem-

ically pure (contains no plasticizer). And it has a very low rate of water-vapor transmission.

This carboy consists of two half sections molded of "Alathon" and joined together by heat-sealing the flanged edges. A steel band is then bolted around the sides to form a permanent mechanical seam.

The screw cap, seal and pouring spout are also molded of "Alathon." The spout is reversed inward during shipment, is pulled up and reversed outward for easy pouring.


Du Pont "Alathon" has many applications in the packaging industry—as molded containers and closures and as a coating for paper. Perhaps it can help you in your future packaging needs. For full information, write: E. I. du Pont

de Nemours & Co. (Inc.), Polychemicals Department, Room 248, Du Pont Bldg., Wilmington 98, Del.

* Karbox** Carboy molded by A. L. Hyde Co., Greendoch, N. J., for Tennessee Products & Chemical Corporation, Nashville, Tenn.

†T. M. Tennessee Products & Chemical Corp.

*REG. U. S. PAT. OFF.



REG. U. S. PAT. OFF.

**BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY**

Polychemicals

DEPARTMENT

PLASTICS • CHEMICALS



Why seal by hand when a \$45 investment can CUT PACKAGE SEALING COSTS 50%!



Here's How:

In the time it takes to snap your fingers, the "SCOTCH" Brand Box Sealer can apply a 1½" protective seal of "SCOTCH" Brand Cellophane Tape across the open edge of your box. In one easy operation your boxed or bagged merchandise is safely sealed, attractively packaged for more sales appeal. Telescope, full-flap, tuck-in, and other type boxes—it seals 'em all. And the labor savings made possible by the semi-automatic "SCOTCH" Brand Box Sealer can actually cut your packaging costs in half!

Make us prove it!

Ask for a FREE DEMONSTRATION of the "SCOTCH" Brand Box Sealer (no obligation, of course.) See for yourself how it can save labor and material costs, improve your package appeal, and speed up your packaging time. Your local distributor who handles "SCOTCH" Brand Tapes will be happy to give you a free demonstration. Or, if you prefer, just clip the attached coupon, check what you want, tape it to your letterhead, and send to: Minnesota Mining and Manufacturing Company, St. Paul 6, Minnesota. Why not call or write for that FREE DEMONSTRATION today—right now. You'll be glad you did!

Minnesota Mining & Mfg. Co., Dept. MP-83, St. Paul 6, Minn.

Yes!

- ☐ I'd like more information on the "SCOTCH" Brand Box Sealer.
☐ I'd like a FREE DEMONSTRATION of the "SCOTCH" Brand Box Sealer.

Name _____

Address _____

City _____

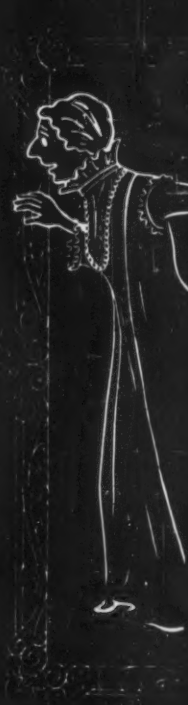
Zone _____ State _____



The term "SCOTCH" and the plaid design are registered trademarks for the more than 300 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn., also makers of "SCOTCH" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotch-lite" Reflective Sheeting, "Safety-Walk" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives, General Export, 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



art for sales sake...



fisher's foils

FISHER'S FOILS LIMITED, EXHIBITION GROUNDS, WEMBLEY, MIDDLESEX, ENGLAND
TELEPHONE: WEMBLEY 6011

CABLES: LIDENIT WEMBLEY (ARC CODE 6TH EDITION)



A Quality Product of FISHER'S FOILS of LONDON, ENGLAND.

Throughout all stages of manufacture, every roll of foil made by Fisher's Foils of England is *automatically controlled* for gauge consistency by the latest beam gauge. Send today for wide range of samples or ask our representative to call.

**fisher's
foils**

The new WEIGHING WONDER

of this day and age...

REVOLUTIONARY PRESSURE PRINCIPLE

NOW — for the first time — PNEUMATRON makes available instantaneous pressure weighing — the result of many years of research and cumulative experience.

The Pneumatron weighing head has a highly responsive, continuously balanced cantilever assembly which moves only a few thousandths of an inch during the weighing operation. An air control device measures this deflection in millionths of an inch — while weighing within hundredths of an ounce. The result in performance like this —

SPEED — More than twice as fast, two head units may be used to do the work previously done by four.

ACCURACY — Compared to conventional methods Pneumatron's phenomenal accuracy and reliability keeps overweight "give-away" to a negligible minimum, thereby saving thousands of dollars per year.

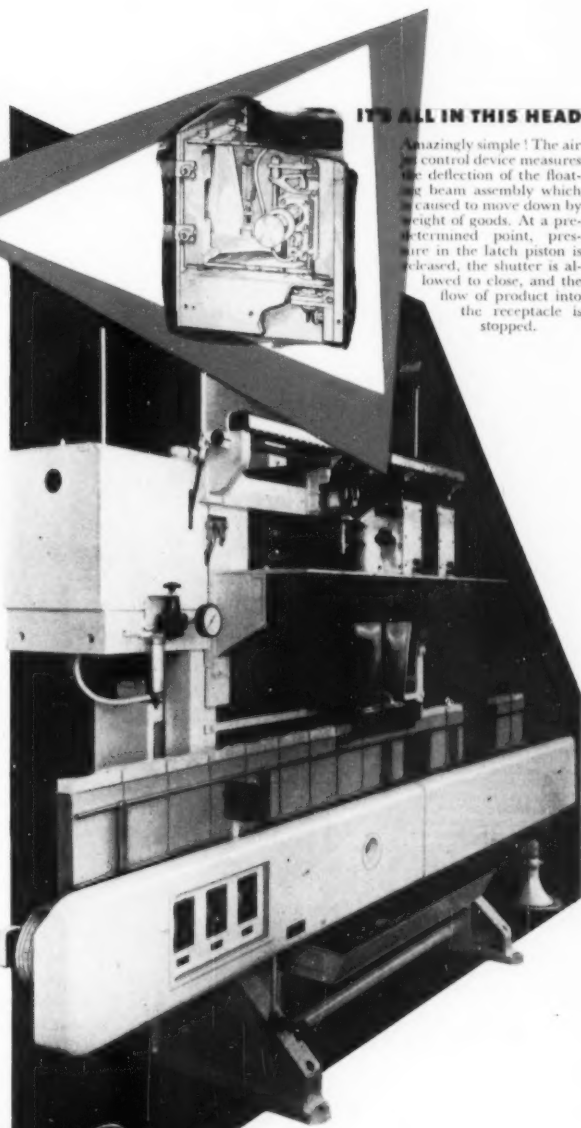
CONSISTENCY — Weights hold to the line day in and day out — repeated adjustments are unnecessary, just set the heads once and forget them!

SIMPLICITY — No electronics or delicate trip mechanisms.

That, in brief, is Pneumatron. For further details on speed, floor plans, weight accuracy charts and overall performance, send for Bulletin 122. PNEUMATIC SCALE CORPORATION, LTD., 82 Newport Avenue, Quincy 71, Mass. Also: New York; Chicago; San Francisco; Los Angeles; Seattle; Leeds, England.

IT'S ALL IN THIS HEAD

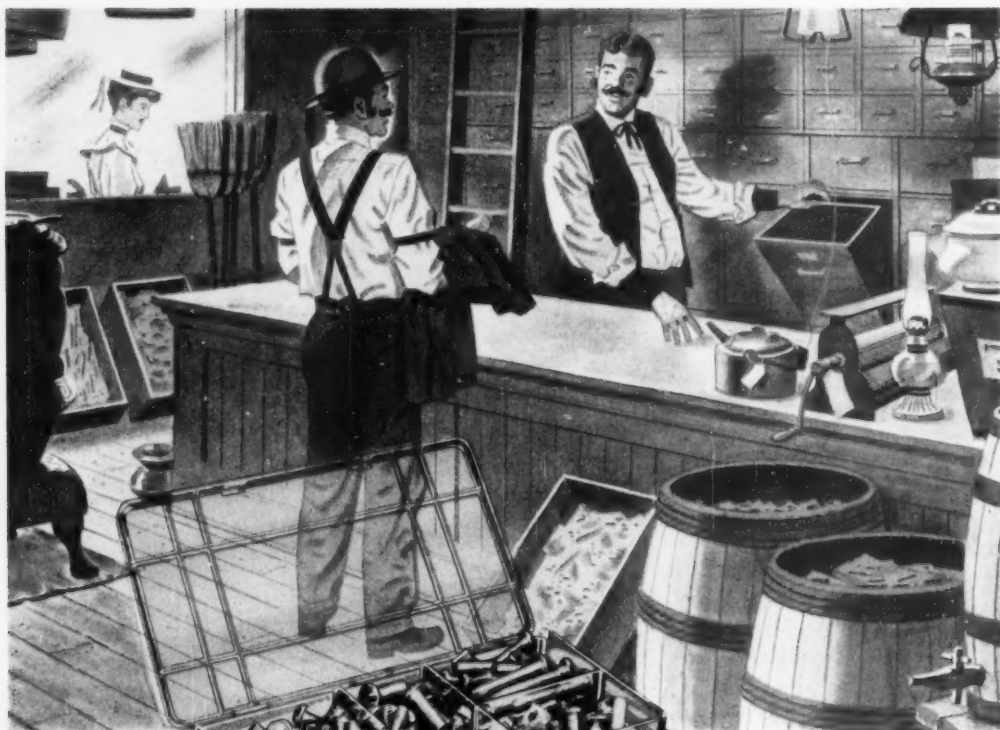
Amazingly simple! The air control device measures the deflection of the floating beam assembly which is caused to move down by weight of goods. At a predetermined point, pressure in the latch piston is released, the shutter is allowed to close, and the flow of product into the receptacle is stopped.



Pneumatron



Packaging and Bottling Equipment



Vlchek Plastic Box used by The Lamson & Sessions Company, Cleveland, Ohio, manufacturers of threaded fasteners, for packaging assortment of stove bolts and nuts.

VLCHKEK **Plastic Boxes** **Modern Way to Sell-**



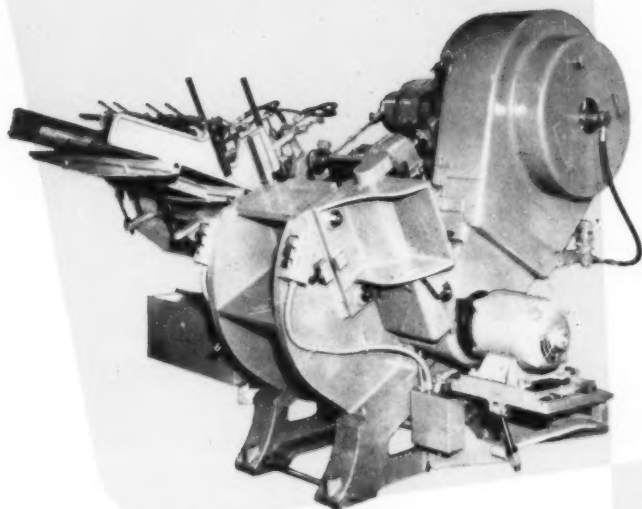
By packaging an assortment of five fast-selling stove bolts and nuts in Vlchek transparent boxes, the Lamson & Sessions Co. enables hardware dealers to display and sell these products quickly and easily. It supplants the old, time-consuming dealer practice of selling the customer five or ten bolts from valuable bin space.

Retailers and wholesalers in many lines: food, drugs, cosmetics, cutlery, electronics, as well as hardware, have realized many advantages—such as good display and protection of contents—from Vlchek Plastic Boxes in addition to increasing sales.

If you have a packaging problem ask about Vlchek Plastic Boxes—eight standard sizes with 548 different compartment arrangements. Specials involving variations in color or interior design, are also available—often at stock box economy. An experienced Vlchek Designer will answer your inquiry promptly.

Built to last . . .

THE LAST WORD IN STRIP FEED PRESSES



the Hamilton STRIP FEED PRESS

STURDY CONSTRUCTION

Welded steel frame . . . far stronger than rating . . . maintains perfect alignment without tie bars . . . no sliding members in brake or friction clutch.

HIGH SPEED PRODUCTION

Up to 300 strokes per minute with multiple dies . . . at least one hour production run without reloading magazine.

LOW MAINTENANCE

Automatic compensation for wear or friction . . . longer die life . . . no scratching . . . full length slide lubrication . . . automatic lubrication.

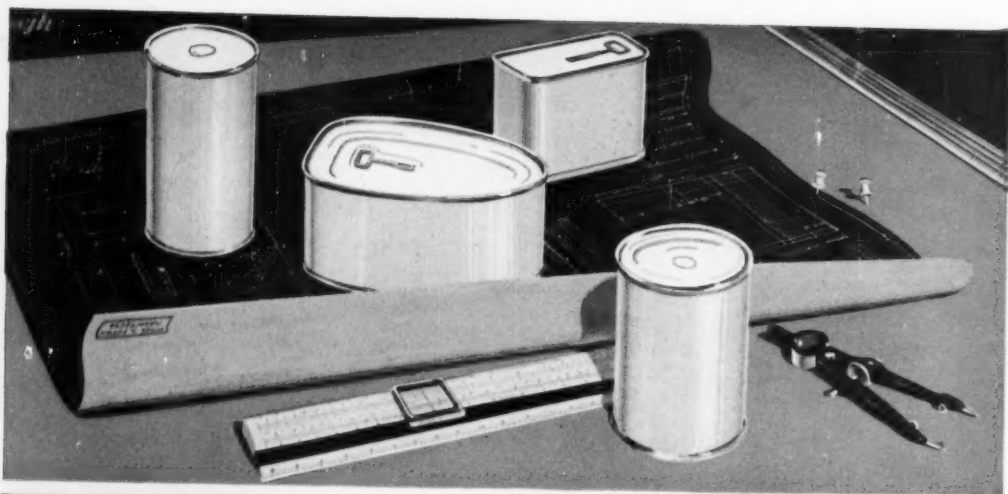
For further information about how this fast, rugged press can cut your costs, write to: Hamilton Works, Baldwin-Lima-Hamilton Corporation, Hamilton, Ohio.

HAMILTON WORKS, Hamilton, Ohio

BALDWIN-LIMA-HAMILTON



Offices in Principal Cities



← What you want...

Take the simple word, "Ability." When a supplier has that—*plus* enterprise and foresight—it becomes an even more important word: "Availability."

Time after time, since the turn of the century, manufacturers have come to Canco wanting new and different types of packages for new and different types of products. Time after time . . . we've been *ready* with the answer.

For Canco doesn't wait to be asked. We are constantly striving to improve the methods and materials we use to help customers and prospective customers market their products more profitably.

In short, no other organization can match Canco's *combination* of people, conveniently located plants, research, technical assistance, delivery service, quality and experience. As a result, you get *what* you want . . . *where* you want it, and *when!*

That's why it's just plain common sense to

Go first to the people who are first!

← Where you want it...

AMERICAN CAN COMPANY



New York, Chicago, San Francisco; Hamilton, Canada

← and when!

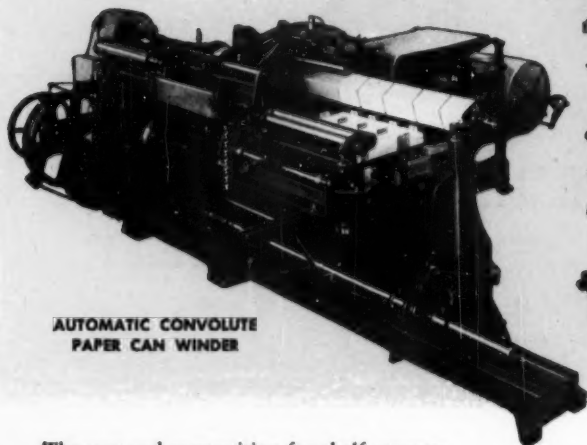
Canco's NEW Non-Drip Container is made entirely of non-critical materials. And note these important selling advantages: *No Breakage . . . Lower Shipping Costs . . . Around-the-Can Lithography . . . PLUS . . . No-Drip Feature.*

This container opens up new fields for such products as: cleaners and polishes . . . liquid detergents . . . salad oils . . . primers . . . hair tonics and shampoos . . . syrups . . . liquid starch.

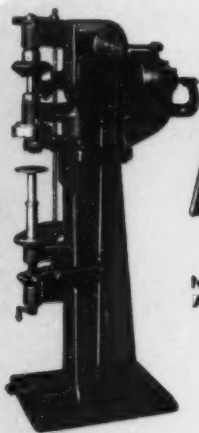


PACKAGE BUDGETS

GO FURTHER *with*
PAPER WOUND
CANS...



**AUTOMATIC CONVOLUTE
PAPER CAN WINDER**



No. 3 SEAMER



**No. 1 SEAMER with
AUTOMATIC CLUTCH**

The cost and competition for shelf, storage and shipping space has forced re-design of many containers. Makers of thousands of products solve this problem by switching to Knowlton Convolute Wound metal topped and bottomed paper cans.

Knowlton will be glad to provide you with facts concerning a variety of sizes and shapes, and the capacity of Automatic Convolute Winders.

SEAMERS

Most efficient, low cost way to attach metal tops and bottoms to round paper cans is with the two-roll round Semi-Automatic No. 1 Seamer with Automatic Clutch. For irregular shape bodies, use the two-roll Semi-Automatic No. 3 Seamer.

Write our Rochester or any Branch Office

BOSTON
637 Massachusetts Ave.
(ARLINGTON)

**M. D.
Knowlton
Company**

BROOKLYN

45-53 Beaver St.

CHICAGO

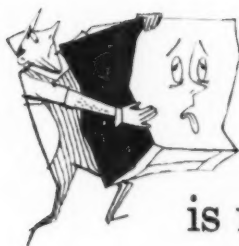
9 S. Clinton St.

TORONTO, CAN.

280 Richmond St. W.

Pacific Coast Representative
H. W. BRINTNALL CO.
Los Angeles, San Francisco

ROCHESTER, NEW YORK



is rough handling beating the "SELL" out of your product?

If your package shows signs of travel fatigue by the time it gets to market, it's time to check up on the materials you're using for protective packaging.

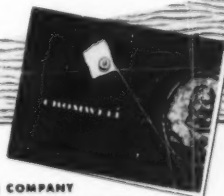
Cromwell's new flexible-laminated protective papers are good insurance that your package will land on the dealer's shelf with all the eye-appeal you've carefully engineered into it. These new papers have the rugged strength you'd expect only in a hard, flat sheet . . . yet they're flexible enough to conform perfectly to your package. They're waterproof, punc-

ture-resistant and tear-resistant.

Specify Cromwell papers wherever you need a conforming exterior protective wrapping . . . as liners for crates or cartons . . . or any other place where waterproofness, strength and flexibility are important.

The coupon is for your convenience in asking us for free samples and ideas you may be able to use in doing a better packaging job. **FLEX-FIBRE**, flexible, laminated-reinforced; **FLEX-LAM**, flexible, laminated only; **FIBRE-KRAFT**, laminated-reinforced.

Cromwell
PAPER COMPANY
4801 South Whipple Street
Chicago, Illinois



CROMWELL PAPER COMPANY
4801 South Whipple Street, Chicago, Illinois

Send me without obligation your new folder of laminated paper samples.

Name Title

Firm

Type of Products

Address

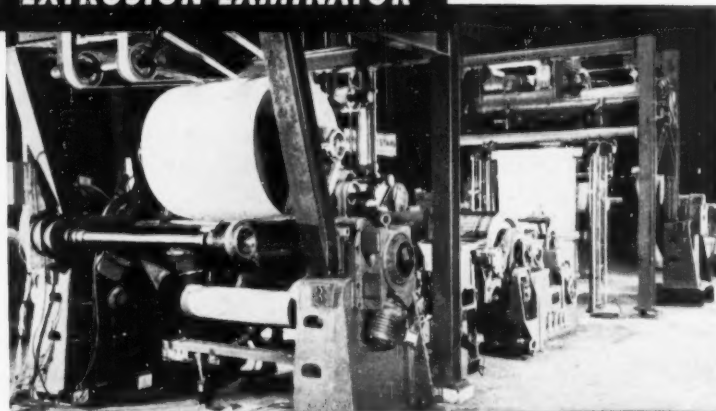
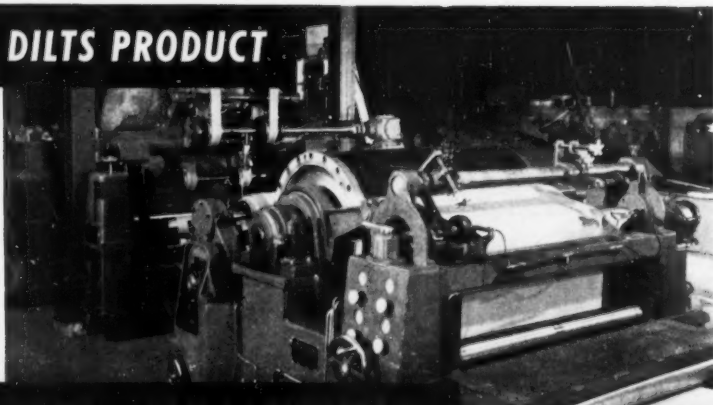
City Zone State

ANOTHER NEW DILTS PRODUCT

HIGH SPEED

POLYETHYLENE EXTRUSION-LAMINATOR

**Complete
Polyethylene
Extruder-Laminator
installations
available through Dilts.**



Model PL-1000 (shown) . . continuous operation to 1000 F. P. M.

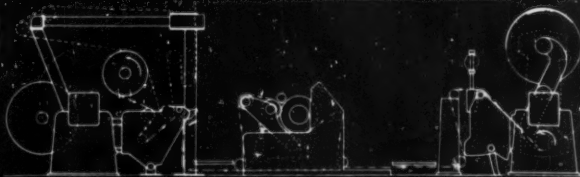
Model PL-400 continuous operation to 400 F. P. M.

Model PLL Laboratory or Pilot Plant operation.

**THE BLACK-CLAWSON COMPANY
DILTS MACHINE WORKS DIVISION
Fulton, New York**

Dilts

Embossers
Coaters
Laminators
Continuous Unwinds
Continuous Winders



CONTINUOUS POLYETHYLENE LAMINATOR

This, gentlemen, is a Sales Chart

Here are shopping routes taken by three women in a self-service food store. Americans like to shop this way. In ten years, self-service food store volume has soared from two to more than eighteen billion dollars. One basic idea contributed greatly to this success story. That idea was the use of packages which protect the product and attract customers.

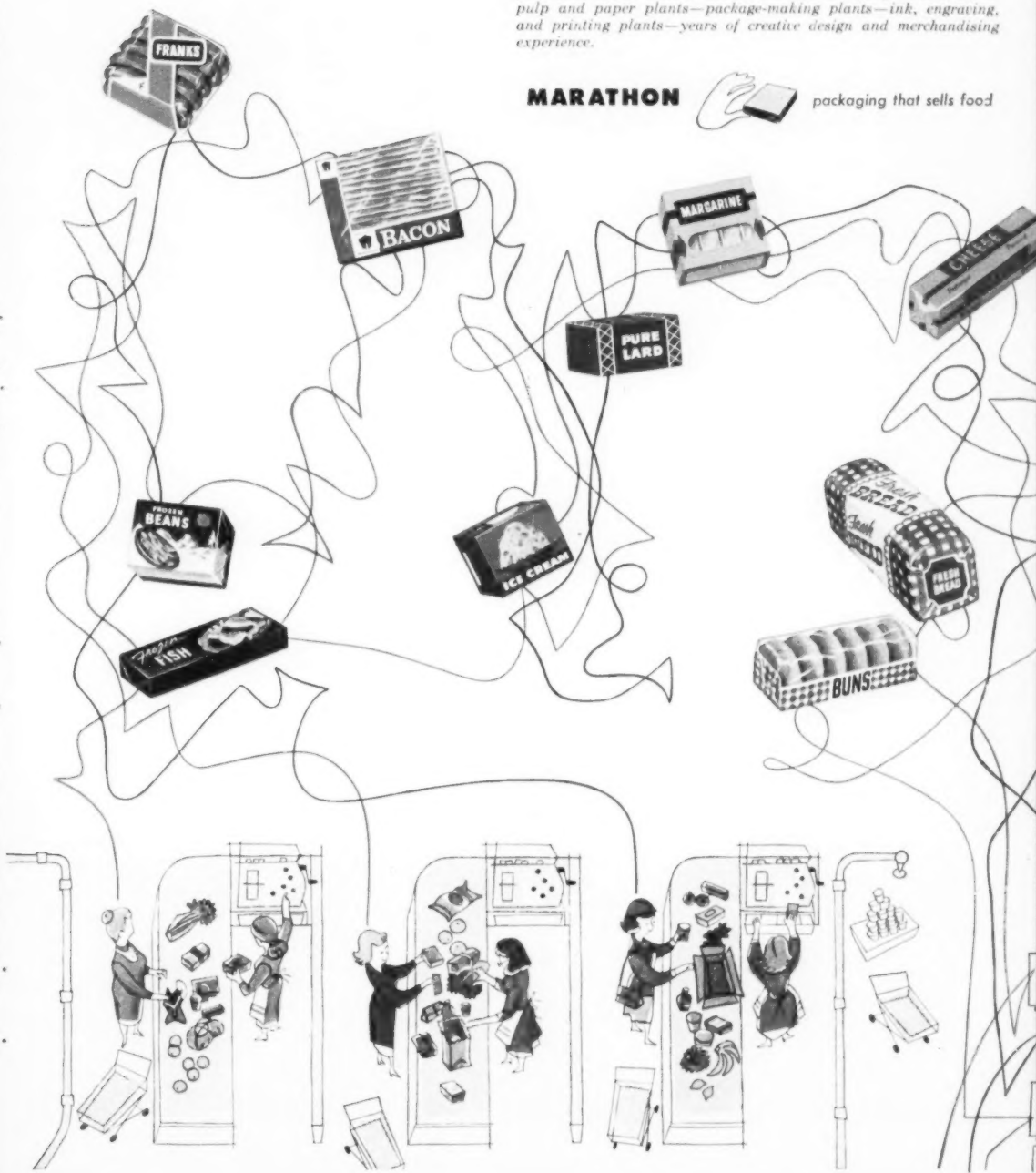
In the past 40 years Marathon has produced many firsts in food packaging. In the ten important years of self-service growth (1941-1951), Marathon's net sales jumped five-fold... sure evidence that the nation's leading food processors have come to rely on Marathon for packaging that protects and sells their products.

Marathon Corporation, Menasha, Wisconsin: from tree to finished package Marathon's facilities include—assured pulpwood sources—pulp and paper plants—package-making plants—ink, engraving, and printing plants—years of creative design and merchandising experience.

MARATHON



packaging that sells food



Polyfilm

POLYETHYLENE FILM



Assures you of Gauge uniformity

Every inch of new Polyfilm is *convertible*. This consistent quality is the result of rigid production control and inspection that minimizes the possibility of human error. Now, you *can* end production slowdowns caused by non uniform gauge. Make your next film order Polyfilm.



Polyfilm

A PRODUCT OF

EXTRUDERS INC.

3232 W. El Segundo Boulevard, Hawthorne, California



The ultimate of
quality,
care,
craftsmanship
...go into
Rowell Boxes

The creative art of the master pottery-maker
finds its counterpart in the exacting skill
Rowell devotes to making fine set-up boxes
... a skill known by packagers everywhere



E. N. Rowell Co. Inc.

Mfrs. Fine Paper Boxes
**Batavia,
N. Y.**

**THE
EXTRA
DEGREE
IN THE
CIRCLE!**



Every delivery of Cochran Aluminum Foil is calculated to meet your specifications from every angle . . . and to meet them in the precise degree you ordered.

But Cochran doesn't stop with just a technical degree of excellence. We deliver, as well, an extra degree of service . . . a unique, personalized service that goes far beyond ordinary business standards. People who deal with us will tell you how much this means.

Cochran *FOIL* **COMPANY**
INCORPORATED LOUISVILLE 10, KENTUCKY

SPECIALISTS IN ALUMINUM FOIL

SALES OFFICES: 714 Wrigley Building Chicago 11, Illinois 238 West Wisconsin Ave. Milwaukee 3, Wisconsin 500 Fifth Ave. New York 36, N. Y. Hippodrome Building Cleveland 15, Ohio 260 Kearny Street San Francisco 8, California 813 North La Brea Los Angeles 38, California



THIS WASTE!



...use **DAREX Resin Emulsion Case Sealing Adhesive**

Even when case bottoms get soggy or wet, they don't give way when they're sealed with DAREX Resin Emulsion Case Sealing Adhesive! This is fact — conclusively proved by leading breweries* that have thoroughly tested DAREX Resin Emulsion Case Sealing Adhesive and are now using it commercially!

DAREX Resin Emulsion Case Sealing Adhesive is applied by standard case-sealing machines. It has

quick grab, with fibre tear in minimum compression time. Its high speed, high yield, plus reduced breakage, insure economy. *It is a proven better way to seal case bottoms!*

But don't take our word for it; test it yourself! Write for a generous sample that will show you, as words can never do, how you can save time, money and breakage with DAREX Resin Emulsion Case Sealing Adhesive!

*names furnished on request

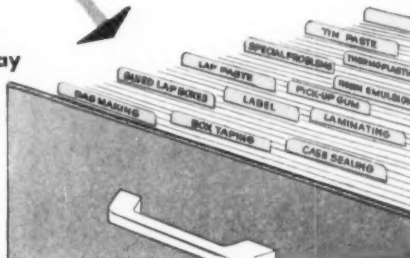


DEWEY and ALMY
Chemical Company

Cambridge 40, Mass.
Chicago 38

Montreal 32, Canada
San Leandro, Calif.

The solution
to **YOUR**
adhesives
problem may
be in our
files **NOW!**



NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS

TUPPER!

The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in *every phase* of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

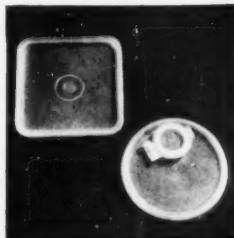
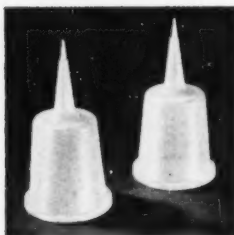
Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!

TUPPER!
TRADE MARK

TUPPER CORPORATION

Manufacturers of — CONSUMER, INDUSTRIAL,
PACKAGING AND SCIENTIFIC PRODUCTS

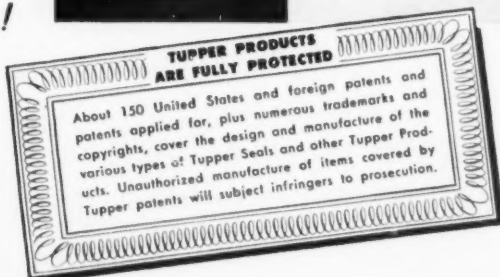
Factories, Laboratories and Sales Offices:
Barnumsville, Mass., Orlando, Fla., L'Epiphanie, P.Q.
Showrooms: 225 Fifth Ave., N. Y. C.



Tupper Seals are air and liquid-tight flexible covers. The famous Pour All and Per Top covers are designed for easy dispensing. They are made in sizes to fit all Tupperware containers.



When equipped with Tupper Seals, Tupper Canisters, Sauce Dishes, Wonder Bowls, Cereal Bowls and Funnels in various sizes are the most versatile reusable containers you have ever seen.



HORSE AND BUGGY PACKAGES





Get the best selling
USE Kronikote COLORCAST BOX WRAP

Made now by The American Paper and Ink Company



Champion and only Champion manufacturer
the "Kromekote" line of coated papers.

The "Kromekote" line of coated papers in-
cludes Box Wrap, Litho Paper, Couch Cover,
Postcard and Colortone Enamel, Cover and
Postcard are available in coated TWL rolls.

The Registered trade mark

Kromekote

is the trademark of

THE CHAMPION PAPER AND LITHO CO.

General Office: BANGOR, MAINE

A master package by **PACKAGE PRODUCTS**

A SEASONAL SPECIALTY

Product:	Novelty Christmas Banding
Description:	Narrow, surface-printed four color cellophane web.
Sales Status:	Widely used to add a holiday touch to gift boxes, stationery, food items, textiles, or any product needing seasonal sales stimulation.

Package Products does cellophane printing that stimulates "impulse" sales. Exacting camera work, painstaking plate engraving and careful registration are all part of the "Rotochrome" quality control system that makes each of our jobs a masterpiece ... a "master-package."

Package Products Company
Charlotte, North Carolina

PACKAGE
PP
PRODUCTS
®





In today's serve-yourself market it takes the best in bag and sack papers to stop shoppers. Nibroc White is that paper because Nibroc gives your package—

Superior Visibility! It brings out the best in printing inks because it has outstanding printing qualities that provide bright, sharp reproduction at high speed with clean, fast drying.

Superior Strength! Because it is exceptionally tough and flexible, Nibroc White gives far greater protection . . . guarantees safe and sound delivery of the product.

More hands will reach for your package in self-service stores. Let our Technical Service staff work with you to develop a Nibroc paper engineered to meet your specific needs. Write Dept. RD-8, Boston.

BROWN  **COMPANY, Berlin, New Hampshire**
CORPORATION, La Tuque, Quebec

General Sales Offices: 150 Causeway Street, Boston 14, Mass.
Dominion Square Building, Montreal, Quebec

SOLKA & CELLATE PULPS • SOLKA-FLOC • NIBROC PAPERS • NIBROC TOWELS • NIBROC KOWTOWELS
NIBROC TOILET TISSUE • BERMICO SEWER PIPE, CONDUIT & CORES • ONCO INSOLES • CHEMICALS



Milprint
PACKAGES
 sing your
 product's praises

...to ring up bigger sales!

There's nothing bashful about Milprint packages when it comes to attracting customers—and telling them a convincing sales story! That's why so many nationally-known manufacturers specify Milprint for packages with the "pick-me-up" appeal that rings up bigger sales.

The success of Milprint packages rests on a solid foundation: over half a century of experience . . . the successful merchandising background of Milprint's package designers . . . the greatest variety of packaging materials and printing processes offered anywhere. It's a combination that will click for you, to increase your sales!

call your Milprint man first



This insert printed by Milprint

Milprint INC
 PACKAGING MATERIALS

General Offices, Milwaukee, Wisconsin
 Sales Offices in Principal Cities

Printed Cellophane, Pliofilm, Polyethylene, Acetate, Glassine, Foils, Folding Cartons, Bags, Lithographed Displays, Printed Promotional Material.

A SIGN OF GOOD JUDGMENT



Automatic FORMING, FILLING and SEALING MACHINE

The big climb in non-fat dry milk retail sales is due, in part, to the smart new individual packets which offer the housewife greater convenience in serving and handling. An effective example of this new styling is the Maple Island four-seal packet, formed, accurately filled and tight-sealed on a STOKESWRAP to make one quart liquid skim milk.

The STOKESWRAP handles printed or unprinted cellophane, pliofilm, polyethylene and other heat-sealing paper or foil. Various feed mechanisms are available for packaging a wide variety of products by pill feed, pocket feed, auger or liquid feed.

Write us about your packaging problem and send a sample of your product. Our package engineering department will offer sound suggestions with no obligation.



This appealing Dry Milk pillow type packet is another example of neat, sales-appealing packaging by the Stokes & Smith STOKESWRAP.

Helpful illustrated STOKESWRAP Catalog sent promptly upon request.



STOKES & SMITH CO.

FRANKFORD, PHILADELPHIA 24, PA.

Pacific Coast: SIMPLEX PACKAGING MACHINERY, INC., 534 23rd AVE., OAKLAND 6, CALIF.

SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION



TRADE MARK



ENGINEERING



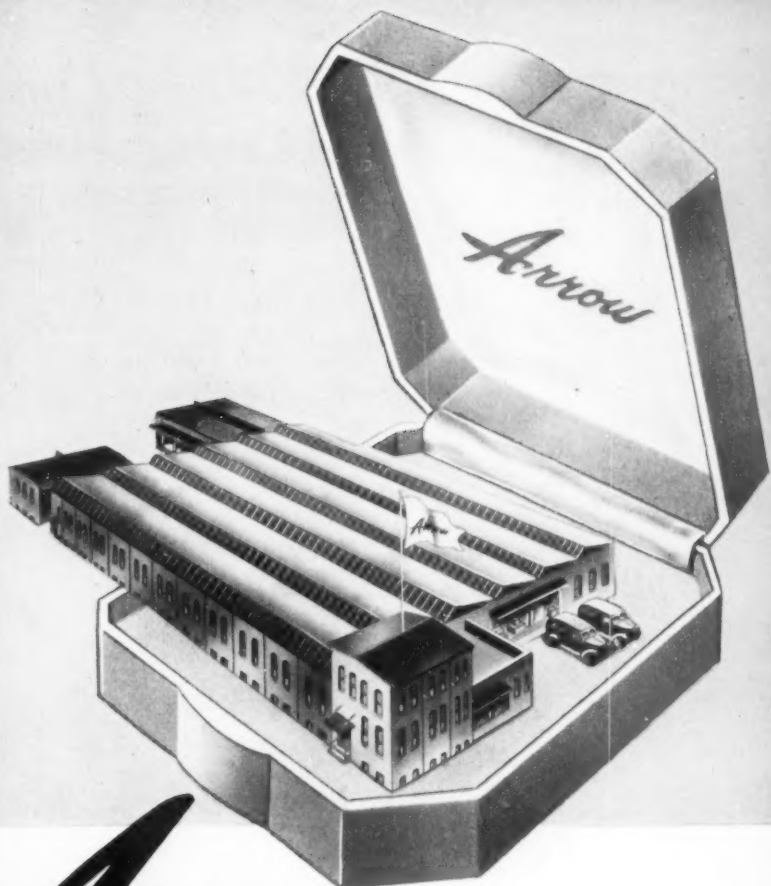
DESIGN and MODELING



MANUFACTURING



SERVICE



Arrow

Facilities for
"Custom-Tailored" Packages
are all Under One Cover

For over 39 years, Arrow has developed outstanding packages for America's leading products. The creative staffs, keystone of the Arrow organization, include the most capable designers, engineers, research and production technicians. Their talents are coordinated to originate and produce, from blue-print to final product, "custom-tailored" packages made to individual requirements.

Supplementing these efforts, Arrow has the variety of equipment needed to provide an unlimited range of treatments, in metal, plastic, fabric or other techniques . . . This flexibility of talents and equipment, under one roof, assures compact operation, economies in costs, and speedier service. An Arrow Consultant will be glad to work with you on your individual packaging needs.

Arrow Manufacturing Company, Inc.
567 Fifty-Second Street, West New York, New Jersey
Canadian Plant: 91 Brandon Avenue, Toronto, Ontario



SPECIALISTS IN THE DESIGN AND PRODUCTION OF DECORATIVE BOXES & DISPLAYS . . . SINCE 1914



For the Food & Beverage Packer

GLASS CONTAINERS WITH SHELF APPEAL



For the Cosmetic Packer

BEAUTY WITHOUT TO SELL BEAUTY WITHIN



For the Pharmaceutical Trade

GLISTENING WHITE GOODWILL BUILDERS



For the Premium Buyer

GIVE HER WHAT SHE BUYS



For Capping every Container

THEY PROTECT AND SELL



*There's an H-A sales office
and an H-A factory near you*

HAZEL-ATLAS GLASS COMPANY, WHEELING, WEST VIRGINIA

Glossy printing on Polyethylene film now practical by flexographic process



EXCELLOBRITE

*high-gloss
flexographic ink*



Bensing Bros. and Deeney

SALES COMPANY

Flexographic Ink Specialists

PHILADELPHIA • CHICAGO • WAKEFIELD, MASS.

New BBD ink gives results that sparkle

Look at this sheet of polyethylene and see the difference between its glossy, color-bright printing and the printing you ordinarily see on this film. The difference is BBD's new EXCELLOBRITE INK. Check the sample sheet also for cleanliness and sharpness of impression . . . for adhesion . . . for flexibility.

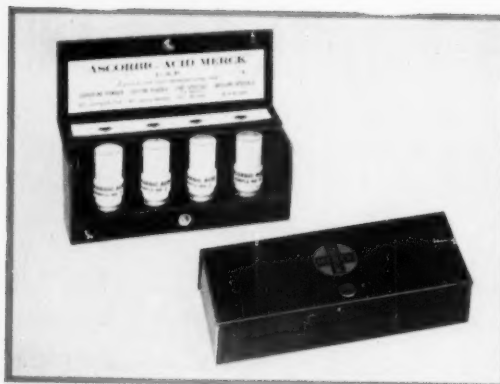
The EXCELLOBRITE INK used to print this sample is the same BBD flexographic ink now in use all over the country for high-gloss face-printing on cellophane (moistureproof heat-sealing, moistureproof and semi-moistureproof anchor-coated types). It is the ink you can use — without any alteration whatever — on cellophane and treated types of polyethylene alike.

Fully pigmented, EXCELLOBRITE features the same extra color-strength that distinguishes all BBD inks . . . the same easy working qualities . . . the same superior printability — *plus* a new eye-catching lustre that makes a package stand out. No wonder EXCELLOBRITE has created such a stir throughout the industry!

You can get EXCELLOBRITE INK in any color — standard or specially matched — and "tailor-made" to your own specifications.

If you would like more information about high-gloss EXCELLOBRITE INK for cellophane and polyethylene just contact your nearest BBD office or write direct to Bensing Bros. & Deeney, 3301 Hunting Park Avenue, Philadelphia 29, Pa.

Printed on Harwid treated Polyethylene



*Award for Best End Use Performance in Pharmaceuticals:
Ascorbic acid sample box for Merck and Company, Inc.*



Awards for Best Display Carton—Best End Use (Pharmaceuticals): Norma-Chrome box for Hydrol Chemical Co.

The judges picked all of these



*Award for Best End Use Performance in Wearing
Apparel: Hat box for John R. Stetson Company.*



*Award for Best End Use Performance in Mailers:
Pharmaceutical mailer box for Schering, Inc.*

MILLER BOXES!

In the 1953 Third Annual Set-Up Paper Box Competition . . . sponsored by the National Paper Box Manufacturers Association . . . awards went to each of the Miller boxes pictured here. One of them, in fact, won


recognition in two different classifications! The box-building skill which won these awards can help solve *your* packaging problems. Call or write; ask us to send a representative to tell you how.

You'll be wise to pick this one



DESIGNERS AND MANUFACTURERS OF SET-UP PAPER BOXES

Phone Market 7-2600



Put them in

*Clearsite**

PLASTIC CONTAINERS

... Give Them a Head Start in the Race for Sales


Clearsite Transparent Plastic Containers are feather-light, shatter-proof, moisture-tight, low in price and high in eye-appeal. Any lettering, design or trade-mark can be permanently printed in any color right on the container. Available in many sizes and adaptable to a wide variety of closures. To these sales features add the tremendous savings in shipping costs! See for yourself why Clearsite is the ideal container for your products.

write for Samples and Prices Now

*Registered Trade-mark

CELLUPLASTIC CORPORATION

General Offices:
50 AVENUE L.,
NEWARK 5, N. J.





with International Stapling Machine



\$12,000 saved annually... more than \$43 a working day . . . through the use of an International Retractable Anvil Stapling Machine that permits the closure of corrugated or fibre cartons from the outside after they are filled!

That is what happens at the Chicago Branch of Avon Products Inc., a nationally known manufacturer of cosmetics and toiletries. The story is told by Mr. Melvin S. Davis, the Chicago Branch Manager. Here is what Mr. Davis has to say about the International Retractable Anvil Stapling Machines:

"Two years ago, we installed a portable, pneumatically operated International Stapler for closing

filled cartons of our products. Formerly, it took 32-man-hours to close between 1,500 and 2,000 cartons of varying sizes. With the International Stapler, this operation requires approximately one-fourth of the time.

"Obviously, we are pleased with this equipment, not only from the point of reducing operation costs, but for its general efficiency and ease of operation."

An International Stapler can substantially reduce your packaging cost . . . there are more than 30 different types . . . from 3½ lb. manually operated portable models for odd job closing to big multi-head automatic models for production closing of large cartons. Write for details.

Have you seen the new sound-movie, "Package for Profit"? It explains the principles of the retractable anvil stapling machine . . . and shows the equipment in actual use. Ask about bookings.

a seal of security



INTERNATIONAL STAPLING MACHINES

International Staple & Machine Company
806 East Herrin Street, Herrin, Illinois

It's smart to stick with Swift's Adhesives

They serve you and food shoppers, too!

Selling food is big business, since nearly everybody is a food shopper at one time or another. In this great industry, there's profit in a *good-looking package*—a package that speaks of high quality product protection. Swift's specialized adhesives help make that kind of package. No wonder so many leading food processors call on Swift for packaging adhesives.

**When you need adhesives,
always remember—**

- Swift has years of specialized experience in adhesives production.
- Swift works with a broad range of quality raw materials.
- Swift has extensive adhesive manufacturing facilities from coast to coast.

Adhesives for packaging operations:

Swift's Top and Bottom Adhesives: Fast setting, clean machining.

Swift's Tite-Wrap Adhesive: Quick tack — non-warps.

Swift's Case Sealing Adhesives: For both high-speed machines and hand application.

Call **SWIFT** first
for **ADHESIVES**



These packages of "Domino Pure Cane Sugar," produced by The American Sugar Refining Co. are sealed with Swift's #1262 Adhesive . . . assuring tight, sift-proof, well constructed packages.

SWIFT & COMPANY
Adhesive Products Department
Chicago 9, Illinois

This offer expires September 30, 1953

Please send your 100-lb. introductory trial shipment of:

- ☐ Swift's #1262 Liquid Carton Sealing and Tite-Wrap Adhesive. } At the
☐ Swift's Case Sealing Adhesive for Hi-Speed Machines. } quantity prices
☐ Swift's Case Sealing Adhesive for hand application.

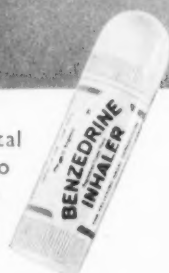
These will be tested for use in our operations. We understand, if not fully satisfactory, they may be returned for credit at your expense.

Name _____ Title _____
Firm Name _____
Address _____
City _____ Zone _____ State _____

John Dale OF ENGLAND *for quality containers*



Collapsible tubes, metal
containers, closures to
your exact specifica-
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LIMITED

GET 3-WAY BENEFITS...

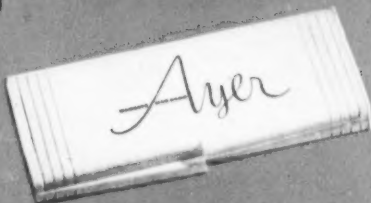
PACKAGE YOUR PRODUCT IN



PLASTIC

BEETLE lends distinction . . .

BEETLE Plastic will conform to any shape, can be produced in any color, and its lustrous, scratch-resistant finish will add eye-appeal to your product package.



BEETLE protects . . .

BEETLE is strong, durable, and has a hard finish that resists staining . . . is unaffected by essential oils, alcohol, acetone or other common solvents. Moreover, your BEETLE package will not attract dust on counters.



BEETLE means economy . . .

This thermosetting urea plastic is reasonable in cost and easy to mold—has color (any color you choose) molded right in to last the lifetime of the package.



*to wrap up sales...
"wrap" your product in Beetle*



AMERICAN *Cyanamid* COMPANY

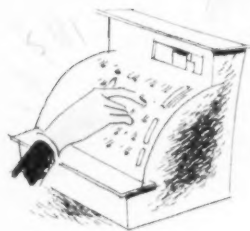
PLASTICS DEPARTMENT

32C Rockefeller Plaza, New York 20, N. Y.

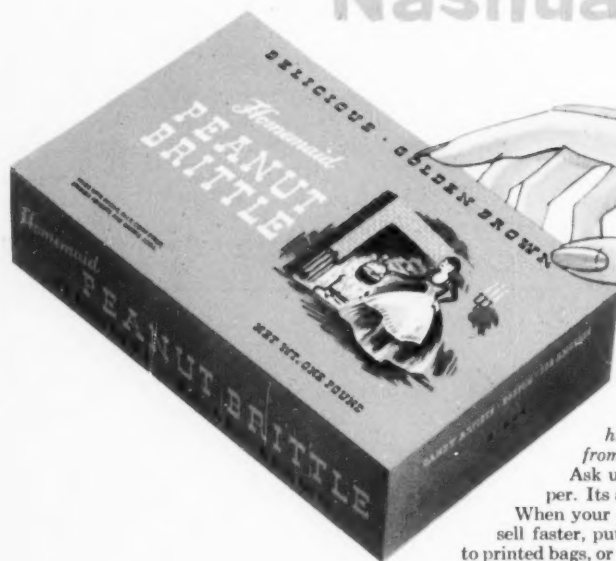
In Canada: NORTH AMERICAN CYANAMID LIMITED
Royal Bank Building, Toronto, Ontario



**A Good Product
Sells Faster
when it's**



Nashua-Packaged



This package is a good example of Nashua's ability to put *something extra* in a printed wrap. The extra here is our process for giving the package an extra high gloss that makes the package stand out from the crowd.

Ask us for samples of this gleaming waxed wrapper. Its appearance will tell you more than words.

When your goal is to package a good product so it will sell faster, put in a call to Nashua. From carton wraps to printed bags, or labels that need no glue, Nashua's packaging experience is unequalled. Send your problem to us today.

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VOLUME 26
NUMBER 12
AUGUST 1953

Modern packaging

NEW USES FOR CELLULOSE BANDS

Shrink-type seals are solving special attachment problems and, with automatic machinery moving into big new fields

Shrink-type cellulose sealing bands, long a stand-by in the liquor and wine fields, are probing into new fields and new uses today.

Item: Hundreds of pharmaceutical products have adopted them for their assurance of a foolproof closure seal and a tamperproof product.

Item: Carbonated-beverage bottlers by the score are applying them over crown caps—primarily as evidence of an extra-quality product, incidentally to help identify flavors by color.

Item: Premium containers such as wine and jelly glasses, lacking a finish suitable for commercial closures, are being made practical as packages by applying simple disk closures sealed by bands.

Item: Multiple-unit packages—both two-for-one and premium deals—are being securely bound together by shrink-type bands.

Item: Food manufacturers are using them on a multitude of products packaged in glass containers



To seal a problem closure.



Band and label in one.



Barber-pole identity.



To attach premium.



To attach tag or booklet.



To safeguard squeeze cap.



To band a deal.



FOOD PRODUCTS of many sizes and shapes are finding assured protection and added merchandising appeal in colorfully printed cellulose sealing bands. Widespread use in this field is a relatively new development.

where they were seldom seen before.

Behind the increasing popularity of the cellulose seal are the following recent developments:

1. Fully production-proved automatic machines are now available to apply bands in pace with high-speed lines, replacing the old hand-application method.

2. Improved methods of printing bands in a variety of colors have been developed.

3. A postwar deluge of new products and sharpening competition in most all lines has provoked interest in new ways to dress up packages, new ways to ballyhoo the merits of the product. Bands—in a rainbow of bright, arresting colors, heightened in value with a slogan, a trademark, an exhortation to buy—and with their assurance of factory-sealed purity—have been to many users an added sales punch.

All this adds up to a clear indication that packagers in all fields, whether they are presently using cellulose bands or not, ought to take a close look at what's going on in this field and what it might mean for them.

Because so many packagers have had no experience with shrink-type bands, a quick word about their his-

tory and their rather curious properties may be in order.

Originally an offshoot of the process of manufacturing cellophane, cellulose seals are produced in two forms—caps and bands. The cap—a cellulose tube closed at one end—was in the early days a favorite of the toilet-goods and drug manufacturers; it served as a sort of secondary closure for their frequently unusual closures or flush corks.

Cellulose bands, which of course are tubes with both ends open, gained popularity with the general use of threaded bottle caps, when it was no longer necessary to cover the entire top of the closure. Besides, bands could be printed easily while, at that time, caps were difficult to print.

Some of the first users of cellulose caps—people like E. R. Squibb, Elizabeth Arden and Ed. Pinaud—are today volume users of bands. But with the legalizing of distilled spirits in 1933, the cellulose-banding industry got a tremendous market expansion. Virtually all distillers soon came to depend on bands to give them positive protection of the Federal tax stamp, to hold closures tight and tamperproof, and to dress up the package. A bottle of liquor without a cellulose band is

today rightly suspect; it may be a re-filled product of the bootleg industry.

Manufacturers of bands deliver the product in a liquid solution (water-glycerine) to prevent premature shrinkage and to make the individual bands easy to apply. Applied while wet, they shrink tightly around the container while they dry. Allowances for shrinkage, usually about 35%, are made by the manufacturer of the bands. All the packager does is to specify the circumference he wishes to cover.

During the shrinking process, there is little or no distortion of the printing because, characteristically, cellulose shrinks in a uniform manner. The only printing hurdle that occasionally has to be overcome is on odd-shaped containers; bulges in the bottle neck or closure can distort the printing unless this is taken into consideration in designing the band.

The bands are not printed in the usual sense of a surface application; the process is more an impregnation of the cellulose membranes with chemical solutions which form a colored compound in the body of the band itself. The printing, therefore, cannot be rubbed off or removed by any known process.

Due to the complex technology involved, printing is done by the producer of the band rather than by a converter. Quality of printing has been vastly improved since those days in the late '20s when bands first came into use.

One limiting factor is that the bands must be printed while wet. In the early days, printing was held down to two colors—red and black—on only one side of white opaque bands. However, a wide range of colors is available today which can be printed on both sides of the band. One band producer offers these basic colors: purple, bordeaux, scarlet, orange, green, red, blue, brown, violet, lavender and black. By blending the basic colors a multitude of different color combinations can be created.

Any two colors can be used in one design and, by printing them on a band of still another base color, an effect of three-color printing is achieved. Base colors are not printed; they're actually dyed. In recent years the so-called metallic colors—gold and silver—have been developed in answer to the needs of beverage producers. Once restricted to line reproductions on bands, manufacturers now freely use reverse printing and can, with ease, employ such things as halftones.

New applications

One of the most striking new ideas in cellulose bands, which serves incidentally to illustrate the quality of small-type printing now being achieved, was illustrated in *MODERN PACKAGING* last month¹. Faced with the problem of packaging a highly hygroscopic, light-susceptible product in a small glass jar, Sanna Dairies, Inc., of Madison, Wis., was struck with the idea of solving both the closure and the labeling problems with one stroke by using for its Sprinkle dehydrated cream an over-sized cellulose band that would not only seal the edge of the threaded metal closure, but extend right on down to the base of the jar. With three-color printing—black, brown and red—on the cream-colored band, no additional labeling was necessary. And the cellulose material, although translucent, effectively blocks light rays that would be harmful to the product. The quality of the small-type printing of instruction copy on the back panel of

the label is inadequately conveyed by the accompanying illustration.

Broad new fields of application are typified by the soft-drink field. This industry has always known the most strenuous kind of sales battles. In their quest for a new sales gimmick, scores of manufacturers have seized upon the colorful "plastic collar" and have had their idea upheld by ensuing sales increases.

By conservative estimates, there are at least 100 carbonated beverage manufacturers now using cellulose-banded closures. This might come as a

surprise to many manufacturers who consider that the industry, besides being highly competitive, is hidebound with thin profit margins. The simple explanation by pioneer users is that the cost of the bands (\$2.50 to \$3.50 per thousand—plus application cost) is more than offset by increased sales volume.

This is borne out by the experience of the Warwick Beverage Co., West Warwick, R.I., which first introduced colored bands on its quart line of 13 flavors last summer. Subsequently, all sales records were broken, according



TWO-FOR-ONE is simply and effectively accomplished by slipping a shrink-tight band around two bottles of Squibb aspirin tablets.



PREMIUM DISH is firmly attached to A-1 Mustard by giant-sized band that goes around dish and over jar. This Heublein promotion has proved popular with grocers.



RE-USE POT had a closure problem which was neatly solved by using a perforated paper milk-bottle top with a snap-in disk to which an instruction tag is attached, the whole being sealed to a ceramic jar with a cellulose sealing band. The band stays in place until the product is exhausted; then—a quick pull by the consumer on the projecting ribbon and an attractive cigarette holder is born.

¹ See "Cellulose-Band Label," *MODERN PACKAGING*, July, 1953, p. 182.

These colorful bands speak for themselves



RED CHECKERBOARD pattern on wine closure reinforces label suggestion that this is a good, red table wine.



FAMILY IDENTITY is achieved on odd-shaped Arrow liqueur bottles by repeating trademark on each band closure. But different colors of bands distinguish variety at a glance. This is a function of bands now widely used.



SALES SLOGANS on bands instantly catch the shopper's eye: "Minty fresh flavor." "You'll like it." "Really effective."

to Luke Clarke, company vice president.

Sizing up the situation, Mr. Clarke emphasizes that profit in this business is inseparably tied to volume. Sales volume would not be consistently increasing month after month, he says, if the bands were not winning premium display space and if they were not making it easier for the shopper to recognize brand and flavor quickly.

Bands are particularly feasible for quart bottles of soft drinks because, at the relatively slow production rate of 35 bottles or so a minute, the customary method of applying bands by hand creates no impasse. At the Warwick plant, the one operator who runs the labeling machine can very easily apply bands at this speed. Warwick is now banding all quart bottles and plans to band any new items that may be added to the line.

Over and above enhancing product appearance and preventing contamination, Hi-Grade Beverage Co., Inc., Buffalo, N.Y., finds that bands serve to identify different flavors both before and after the crown cap is removed. Hi-Grade identifies the type of soda permanently on the bottle by means of a color-applied label, so it is important that sorters keep their flavors straight in handling the bottles for refilling. Other bottlers, desiring to cut costs, have adopted a standard bottle for all of their sodas and identify flavor only on the cellulose bands.

By so doing they cut bottle costs and simplify inventory and sorting of returned bottles. Generally, bottlers feel that bands give their products a sanitary premium look.

The food field

Much like the experience of the soft-drink industry, a rising tide of applications is now beginning to flow into the food industry, with one producer quickly following the example of another. Typical among the food items now banded are those that require special protection against accidental breaking of the closure seal or deliberate tampering and those using specialty containers lacking a commercial finish so that there is no other practical means of sealing on a lid. For products in the latter category—usually involving re-use containers—the shrink-type band has become a life saver.

The special food products now using the cellulose band are generally those produced at relatively slow rates, so that hand application is quite practical. The new automatic banding machines are so far adapted only to standard-finish bottles such as are used in the liquor and drug industries. If and when these machines are made adaptable to wider-mouth food bottles and jars, and made adjustable to various sizes on one line, a vast new field in foods will be opened up.

Specialty food packers have found

that bands can give their products an extra selling boost at the point of sale, where two out of three decisions to buy are made. A number of other merchandising reasons have also influenced their decisions. Bands facilitate price marking—space on top of the cap can be left free and the copy once carried on the cap can be switched to the band. Juggling of jar caps by unscrupulous customers from a higher-priced to a cheaper product, as well as surreptitious sampling are thwarted. Colorful bands provide a new, eye-catching spot for sales messages, slogans, trademarks and premium offers subject to frequent change.

A functional strong point is in guarding the freshness and flavor of vacuum-packed foods and other products by sealing the screw cap in place with bands, thus preserving the vacuum. Manufacturers who use bands for this purpose know that the customer is influenced, consciously or unconsciously, by the conviction that the product is as pure as when it left the factory, that it is free from contamination, untampered with, has not evaporated and is fresh. The band is a gesture of reassurance; it tells the customer that the manufacturer thinks well enough of his product to provide this dependable safeguard.

Customer tampering with food and other products probably adds to the woes of retailers as much as pilferage. Spilled food, torn labels, unsanitary-

looking packages add up to lost profits. For some manufacturers tamper-proofing is the primary reason for using band seals.

Indian Summer apple cider is a food product with a typical seal problem. Since the pasteurization effect of sweet cider is lost as soon as the bottle cap is loosened, the bands are considered essential to insure product protection for the wholesaler, the retailer and the consumer.

For re-use packages

Typical of companies solving special re-use package finish-and-closure problems with cellulose bands is the Sea Snack Co., Philadelphia. This company packs shrimp cocktail in a sherbet-type glass intended both for original serving of the product and for continued re-use as table glassware. The glass obviously could not use a threaded finish and a vacuum-cap lip was both undesirable and impractical, as the glass was not built to sealing pressures required for this type of cap. Sea Snack's answer was to use a simple paperboard disk, sealed to the jar with a colored shrink-type band. Kept under refrigeration, the product, which is distributed only locally, has a shelf life of approximately four weeks. Six thousand bands are applied daily by hand and dried by forced-air draft.

When Señora De Gonia of Garden Grove, Calif., packaged a line of condiments in re-usable, colored ceramic pots, she chose cellulose bands to secure both a shaker-top insert and a milk-bottle-type paper cap firmly to the container.

Similar problems are being solved by other firms marketing re-use containers. The Kroger Co., Cincinnati, which packages peanuts in a beer glass, used a printed yellow band to secure a snap-on cap firmly to the glass.

Combination deals

Distinctly new is the idea of using the shrink-type band to join together two or more items to be sold as a single merchandising unit.

G. F. Heublein & Bro., Hartford, Conn., illustrate two typical uses of this kind of banding. They have used plain transparent bands to tie together A-1 Sauce and A-1 Mustard in a one-cent deal and they have banded A-1 Mustard to a plastic dessert-dish premium.

Frank C. Marshall, Heublein's ad-

vertising manager, believes bands to be the neatest and simplest method of securely holding two packages together while in transit and on store shelves. Because transparent bands were used, the brand name and product information remained visible to the shopper. Hand application was necessary, but a jig was designed to hold the packages together while the operator applied the wet bands over the packages. Shrinking and drying was accelerated by the use of hot-air blowers.

An especially ingenious premium attachment is the sealing of a wine glass to each bottle of Canterbury wine, as illustrated on p. 77. The glass is simply inverted over the bottle top and is banded to a ring in the bottle neck on which it rests. Bisceglia Bros., Long Island City, are the producers.

With its endless variety of special deals and promotions, the proprietary drug industry has taken kindly to banded combinations because of their ease of application and comparatively low cost.

Product introduction and sampling are two of the chief uses made by Bristol-Myers Co. Bidding for new users of Ipana toothpaste, the company

created a bargain unit for the consumer by banding its medium and giant-sized cartons.

In a similar fashion, E. R. Squibb & Sons frequently creates multiple units of sale to quicken dealer and consumer interest in various products. A transparent band was, in one case, slipped around two 100-aspirin bottles. The incentive to consumers was a saving in price for buying two. The plain, transparent band carried no information on the offer; this was left

DEALER LIKES colored bands to distinguish flavor varieties of Warwick Club Soda; it helps him to keep his stock straight.



All these now use cellulose bands

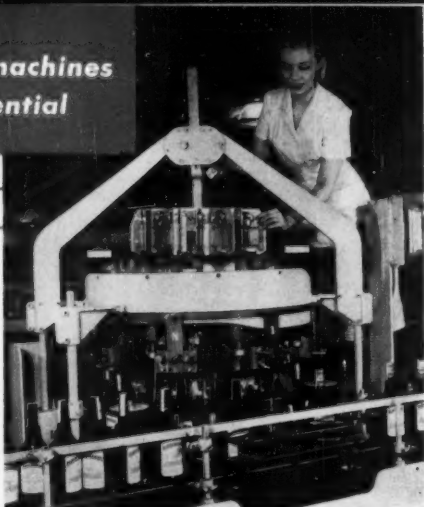


MORE THAN 100 bottlers of carbonated beverages, altogether, are estimated to have adopted bands for their quart sizes. Customers like the assurance of quality and sanitation. Because increased sales have more than paid the cost of banding, the practice is sweeping this industry rapidly.

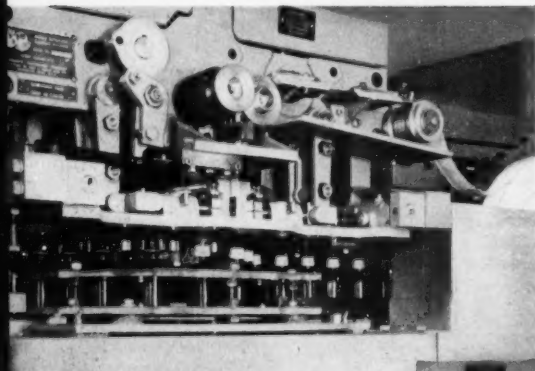
New automatic machines have big potential

CUT-TYPE

ON LIQUOR LINE, this machine replaces four to five hand workers. Keeps up with 150-a-min. speed. Here operator moves loaded hoppers of pre-cut bands into position with their corresponding magazines, then lowers hoppers to machine proper. This machine registers "windows" of bands over tax stamp on bottles of Fleischmann's whiskey.



PHOTO, AMERICAN MACHINERY & EQUIPMENT CO.



PHOTO, ECONOMIC MACHINERY CO.

ROLL-TYPE

CONTINUOUS feed from roll (at right) is principle of this machine. It cuts bands to size as it applies them to bottles.

to counter display cards. In the past Squibb has also band related products like dental cream and toothbrushes with considerable success.

Seal of purity for drugs

Generally speaking, the primary reason for the increased use of the cellulose band in the drug and pharmaceutical industry is as a closure seal, for the assurance it conveys that the product is genuine and pure.

To give that assurance, to guarantee the delivery of an unopened package to the end user, the Wm. S. Merrell Co., Cincinnati, now applies bands to 500 different packages. The principle of the factory seal works in reverse, too. When a package is returned with the seal intact, the manufacturer generally accepts it for full credit without question. Also, bands serve as an additional precautionary measure against loosening of the primary closure, which might destroy the efficacy of the drug.



FOUR PRODUCTS of four different manufacturers now using the roll-type machine. Note that wide variation of bottle sizes makes little difference; size of bottle finish is more critical.

The squeeze feature that makes polyethylene bottles so popular is also a problem in shipping and handling. A dent in the shipping case may result in emptying the contents of one bottle over the entire remaining case. On the counter, squeeze bottles seem irresistible to shoppers, who like to pick them up and squeeze them to see how they work; many purchasers are skep-

tical of the necessary air space at the top of such a container, feeling that the bottle has been a "demonstrator." To avoid all such hazards, Curli Lock Laboratories, San Francisco, simply drops a cellulose shrink-type band over the closure of its hair preparations, sealing the opening until use.

Sales appeal

Manufacturers of cellulose bands usually base their selling arguments on two points: they seal and sell. The sealing advantages have already been described. As far as sales appeal is concerned, it is usually generated through the colorful appearance of the brightly over-all-printed band or a printed message that identifies the product or some of its outstanding advantages.

Though it is often difficult to package a product to suggest its actual use, Bristol-Myers has done so with a 15-oz. bottle of Vitalis sold only to barbers. A band, printed in the familiar red-and-white barber pole spiral, says "hair tonic" right off the bat. In a similar way, the California Wine Growers Guild creates a mental image of good food and wine with a band printed to look like a red checkered tablecloth.

Artistic uses of bands in this way give products extra brand identification and greater eye appeal at the point of sale. Arrow Liqueurs Corp., Detroit, packages a varied line in bottles of many different shapes, making it difficult to preserve family identity. This is done with bands now carrying the Arrow trademark on the entire line.

H. J. Heinz Co., another steady user of colorful seals, is achieving better product identification on crowded supermarket shelves. With two types of specialty vinegars, Heinz makes them quickly distinguishable by using a red band for malt vinegar and a gold one for tarragon. These bands purposely blend with the colors of the products and the result is a good-looking package that stands out on jammed shelves.

And now machines

The limiting factor in broad-scale use of cellulose bands has always been the necessity of applying them by hand. Now, after some 10 years of intensive development work by packaging-machinery manufacturers, two makes of automatic band-applying (This article continued on page 185)

Indexing Self-selection

Kleinert's uses tabs on carded baby pants and charts in a wire-rack display to answer questions of size and color

An answer to the problem of self selection from a range of sizes and colors has been found by the I. B. Kleinert Co. in the packaging of its baby pants for wire-rack display in supermarkets.

The solution is as simple as the index tab on a file folder. Kleinert's simply wraps each pair of baby pants in cellophane over a card and prints size and color on the upper edge of the card, which extends upward about 3 in. above the product itself. It's easy for the shopper to riffle through these index tabs in the stepped wire-rack display and pull out the size and color she wants without disturbing the rest of the packages.

Then, to help the mother who isn't certain about the size her baby takes, Kleinert's classifies babies into small, medium, large and extra large—according to age and weight—and prints these classifications clearly on a panel at the front of the wire rack. Every question that a mother might ask a salesperson is answered.

The large area of visibility in the cellophane envelope gives the product the chance to sell itself. However, there was some question in the minds of Kleinert executives whether shoppers would recognize the product as baby pants. A spot check in a supermarket was set up to find out. Baby pants were wrapped around a cardboard backer and placed in the proposed type of cellophane envelope—except that it was devoid of brand name or a printed sales message of any kind. In checking 200 women,

98% immediately identified the contents as "baby pants," "rubber pants" or "children's underwear."

A formidable problem was the wide range of sizes in the company's two brands of baby pants, the silk Softex and Sturdi-Lite plastic lines. Each line includes four different colors and four sizes. To provide separate printed cellophane envelopes for all these combinations of sizes and colors would not have been practical.

index tab on a file folder. Kleinert's

A compromise was reached by establishing a basic, prefabricated envelope. Both brands of baby pants did have one thing in common—the washing instructions. These are printed on the back of all envelopes.

The other essential information for any package—brand name, product name, price and other facts—is preprinted on the cardboard backer. A different basic information card is naturally used for each of the lines, with a blue color key for plastic pants and a cherry color for silk. The variety of sizes and colors is the only information left off the preprinted card, but is put on with a small job press in the factory as orders are received.

The cleverly designed size guide on the rigid front of the display unit, though an integral part of the fixture, slips down over the edge of the shelf and looks like a printed shelf strip. Supplied gratis by Kleinert with initial orders, the display rack uses a minimum of shelf space, yet gives full display to a multisize, multicolor line.

FILE-CARD TOPS of Kleinert's baby-pants packages instantly show color and size. This information is imprinted at the factory on a preprinted backer.

Racks for both lines accommodate 4 doz. individual packages in four sizes in four colors.

An interesting construction feature is the header for the fixture which carries selling copy and a large price mark. It folds forward for shipping, but has been devised so that it locks into an upright position when on display and discourages handling which might bend it backwards.

The new self-selection packages, in conjunction with the display rack, virtually cry for top shelf or other commanding display locations.

CREDITS: Package and display fixture design, Alan Berni Associates, 7 E. 44 St., New York 17. Cellophane bags, Cellu-Craft Products Corp., 133-23 35th Ave., Flushing 54, N. Y. Printed cardboard backers, Folding Carton Co., 20 River Rd., Bogota, N. J. Wire display rack, Wireline Display Co., 15-32 129 St., College Point, N. Y.

FACT FINDING preceded actual design of new packages. 98% of shoppers could tell cellophane bag contained baby pants, showing that rapid product identity was achieved.



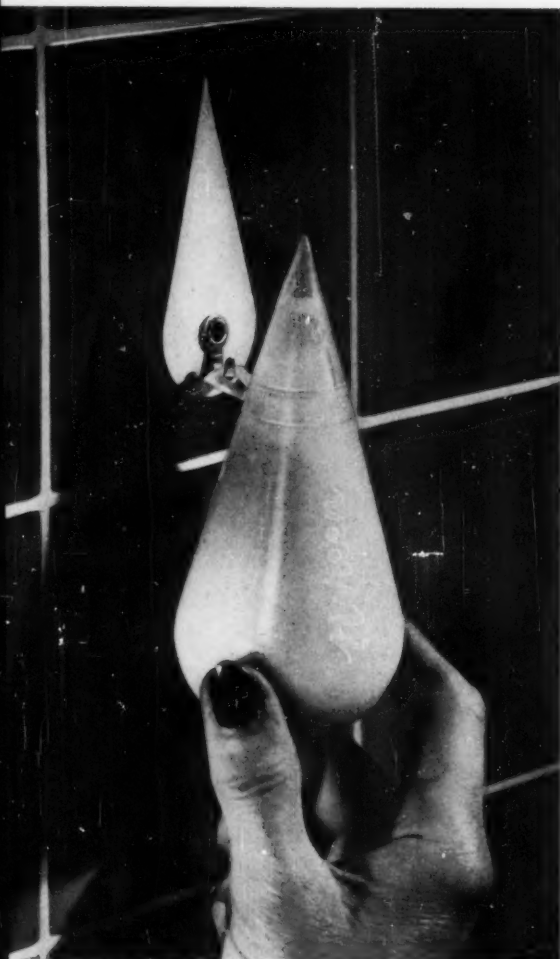
Ever-ready squeeze

Noreen's teardrop poly shampoo
bottle with a revolving integral
closure hangs handy on a hook

The factor of consumer convenience reaches a new high in a shampoo package now being sales tested in the Chicago market. The product is Noreen Super Satin Creme Shampoo and the container—a 4-oz. blown polyethylene bottle—not only incorporates a new, integral, streamlined type of dispensing closure, but also is designed either to stand erect on its own base or to hang on the wall, ready for immediate use in tub or shower or at the wash basin.

The entire package is a commendable example of ingenuity in the use of polyethylene's special properties in addition to the squeeze-bottle principle.

The distinctive tear-drop design of



CONVENIENCE reaches a new peak with adhesive wall hook, supplied with each package, from which bottle can be hung, between shampoos, by ring molded onto closure. Teardrop shape is Noreen trademark.

SELL COPY is confined to a folder hung on the bottle over hook handle. Wall plaque rides in slots on back of the folder. Red pressure-sensitive tape seals the closure opening prior to use.





DIRECTIONS inside folder explain that, to dispense, top is rotated till tiny opening in side lines up with similar opening in inner cone of closure. Cap need not be taken off.



DISPENSING is from side opening in closure by gentle squeeze on bulbous body of bottle. Company suggests cap can be pried off and bottle refilled with shampoo or hand lotion.

the new dispenser was inspired by the shape of the Noreen logotype. The Noreen name, in script, is molded in relief directly on the side of the bottle—the only marking on it. Leakproof, non-shattering and spill-proof, the package fits the hand comfortably.

To dispense the cream-type shampoo, the container is opened by rotating the conical top to the right, until small openings in the neck of the container and the captive cap are lined up, permitting the product to be released by squeezing the bottle. The cap itself, not removed in the process, cannot be dropped or lost. To re-close the bottle, the cap is rotated back to its former position.

The two-piece cap and the bottle are molded as separate pieces. A raised ring around the neck of the bottle seats in a groove of an inner cap, which expands over the ring when pressure is applied. The inner cap is keyed to the bottle with a raised section fitting a vertical keyway in the neck of the bottle, preventing it from revolving when the outer section of the cap is rotated to line up the dispensing openings. The two-piece cap is applied assembled, as it has proved advantageous to pair the items from the same molding cycle.

The bottle itself is made with a flat base, so that it sits securely upright on a shelf or in the bathroom cabinet if desired. For maximum convenience, however, the package may be hung on the wall by means of an

adhesive plaque supplied with each bottle, with a metal hook on the plaque engaging a loop molded on the side of the closure. The paper plaque, which will adhere to any clean, dry, dust-free surface, is backed with a pressure-sensitive adhesive having a protective sheet that is conveniently stripped off when the plaque is to be applied to the wall.

Having the container always ready on its special hook eliminates searching through the bathroom cabinet and insures that the product is always ready for immediate use. It is believed that this will prove a compelling sales feature.

Since the bottle itself is devoid of identification except for the discreetly molded name "Noreen," it is merchandised with a clever die-cut tag, in the same teardrop shape as the bottle and trademark, which slips over the closure's hang-up hook through a slotted, triangular opening. Doubled over at the base, the tag carries product and use copy on the outside, along with the claim that this is "the most convenient dispenser ever designed." Inside the tag are more sell copy, opening instructions and—held in slots in the back surface

(This article continued on page 180)

COUNTER DISPLAY is smartly designed of sheet of 10-ply board curved and held through a slot. Bottles hang on same adhesive-backed hooks as for bathroom use. Convenience is demonstratable.



DESIGN DETAILS are revealed by this close-up of two-piece closure and bottle. Inner cone rotates in closure, but when applied to bottle an inner ridge locks in side slot in bottle finish to hold cone steady and let outer closure rotate around it. Raised ring at base of bottle neck snaps into inside groove of cone to fasten entire closure assembly to the bottle.



Décor for



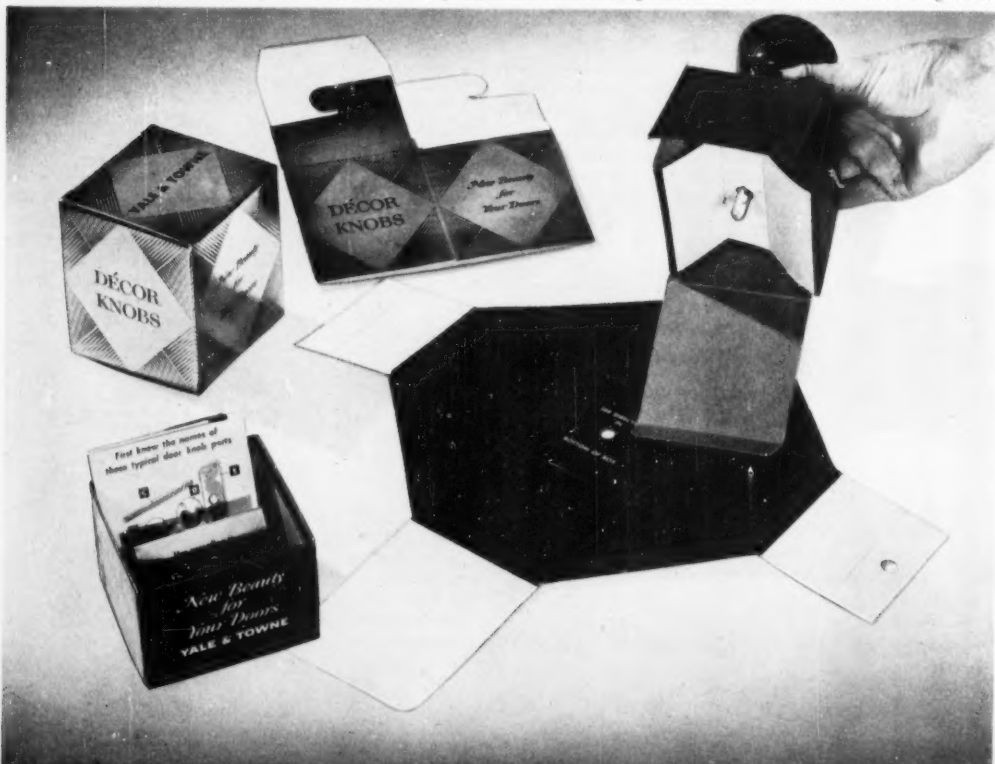
INDIVIDUAL three-piece box provides attractive gift container and display unit for merchandising various styles of porcelain doorknobs with decorator items such as draperies, wallpapers.

Packaging any doorknob efficiently is not easy. Packaging decorative doorknobs so that they will have impulse and gift appeal is the challenging problem Yale & Towne Mfg. Co., Stamford, Conn., has solved with a cleverly constructed, three-piece display box for its new "Décor Knobs."

The new package is a good example of modern box-making techniques in meeting a wide variety of packaging problems through a combination of set-up and folding construction.

The new Décor Knobs offer homemakers, for the first time at popular prices, hand-decorated porcelain door hardware, reported to cost only one third that of the finest imported ceramic doorknobs that have been fashionable in fine houses since English potters began making them in the early 18th century.

CONSTRUCTION consists of set-up box base concealing instruction insert and envelope for adhesive capsule; scored, die-cut platform into which spindle of doorknob is secured like a pedestal and laminated, gold-colored, aluminum-foil tuck-folding cover.



doorknobs

Yale & Towne creates an efficient and appropriate box with gift appeal for decorator porcelain knobs

It was obvious that each knob—selling for \$4.95, a popular price for a gift—should be packaged individually. Each had to be given protection from breakage and each had to be packaged for easy set-up in open display so that shoppers might make a selection of the 12 different styles, three shapes and variety of colors and patterns designed by Freda Diamond, noted home-furnishings stylist. The completed package had to be sufficiently attractive so that it would look like a gift in the hands of the recipient, yet provide good product and trade-name identity. The box had to be sturdily based so that the top-heavy knob would not cause it to topple over. And, included in the package where the user would find it, had to be an envelope containing a capsule of special adhesive for securing the knob assembly and a printed instruction leaflet.

Following a careful outlining of these requirements by the manufacturer and a complete study of the problem by the box maker, a three-piece box has been constructed which appears to meet every stipulation.

The package was adopted after extensive market tests which indicated its effectiveness at the point of sale. The doorknobs may be merchandised in a number of different departments—draperies, hardware, housewares, gifts, etc.—and the single-unit display package permits visibility and customer examination wherever it is shown. It may be displayed singly or in assortments, whichever best suits the merchandising practice of a department or store. Yale & Towne expects that many homeowners will buy sets for their own use.

The box is comprised of a base, a platform and a cover. The base section is of rigid set-up construction 3½ in. square and 2½ in. deep. It is made of 70-lb. chipboard covered with a

lithographed wrap printed in black with yellow lettering and varnished. The die-cut platform, which holds the knob in place by means of holes which secure the doorknob spindle, is of folding construction, made of 25-pt. white patent-coated stock printed in solid gray with reverse lettering visible when the knob is removed to call attention to the directions in the bottom of the box. When the doorknob is secured in the platform and the platform inserted in the base section, a pedestal effect is achieved. The platforms are produced in three sizes—all 3½ in. square, but varying slightly in height to accommodate the three varying shapes of knobs.

The cover of tuck-top folding construction is made of paperboard faced with gold-colored foil printed in black and is 24-pt. finished caliper.

The package was made in step-up form so that the spindle which is attached to the knob can be held firmly in place by a locking mechanism in the platform.

Originally, it was planned to use a transparent cover to permit full view of the product while completely boxed, but it was found impractical to obtain a transparent cover with sufficient strength to withstand shipping. Also stores, test marketing indicated, preferred to remove the cover for open display of the various styles and for consumer examination.

The gold-foil cover and black-and-yellow base with gray platform were selected because they set off to advantage all of the various colors and patterns of the doorknobs. Any box colorings other than neutral ones would not have permitted the use of the same style box for the complete line. The Yale & Towne name is featured prominently on the top of the cover and on two sides of the base along with the copy "New Beauty for Your Doors." This slogan alternates



COVERS REMOVED, packages show the various styles, shapes and colors of the doorknobs, visible for customer inspection, but securely and sturdily anchored so that they cannot be easily removed or toppled over.

on both the box cover and the base with the product name, "DÉcor Knobs," so that good identity is provided however the boxes are turned.

CREDIT: Box, The Warner Bros. Co., 325 Lafayette St., Bridgeport 1, Conn.



FIFTY-FIFTH OF A SERIES

Dr. West's

TOOTHBRUSH

See the man. Is he buying a thumb brush? No, he is buying a toothbrush. Then why does he brush his thumb with it? . . . How often does this happen to the toothbrush *you* buy? . . .

Thus, in 1926, began one of a series of full-page advertisements in the *Saturday Evening Post* and other consumer publications which marked the dawn of a new and enlightened era in the packaging of toothbrushes. Conducted by the Weco Products Co., Chicago, on behalf of its already well established Dr. West's Toothbrush, this unique advertising campaign sounded the ultimate death knell of insanitary

"open-basket" merchandising of unpackaged toothbrushes. It also foreshadowed Weco's introduction, six years later, of the sealed, sterilized glass tube container which has been hailed as one of the most important advancements in toothbrush history.

The series of "Thumb Brusher" ads spared no punches. "Buying toothbrushes by 'rule of thumb,'" this ad continued, "is as old as toothbrushes themselves. One after another the Thumb Brusher tries. He is a glutton for thumbing. He revels in it. The more the merrier. Thumb! Thumb! Thumb! Trays of toothbrushes are his especial joy. But think you a carton will stop him? Not the true addict! Open the box, says he. Let's try it on the thumb. Another—and another—and another! Will the Thumb Brusher

thumb the toothbrush *you* will ultimately buy? Probably—unless you use Dr. West's—sealed against Thumb Brushers!"

Weco's powerful "Thumb Brusher" promotion hit the drug trade like a bombshell. It awakened consumers to realization of the fact that a large percentage of the millions of toothbrushes purchased annually had been thoroughly pawed and fingered by prospective customers in their efforts to select a brush whose bristle texture suited their preference. Many of these brushes were completely unwrapped; others were sold in unsealed packages which could be easily opened for closer inspection of the merchandise. Laboratory tests conducted by Weco disclosed that due to this prevailing method of toothbrush mer-



AS EARLY AS 1926 Weco was campaigning against non-sterile packaging of toothbrushes. At that time it had adopted a sterile-sealed glassine envelope inside carton. This was the first of its famed series of "Thumb Brusher" ads.

PACKAGE HISTORY is summed up in this photograph. Starting with blind carton at left, Dr. West's adopted sterile glassine wrap in 1926, introduced glass tube in 1932, was forced back to cartons during war and now ships its product as shown at right. Earlier "dozen" cartons are at left rear.



NOMINATED TO PACKAGING'S HALL OF FAME BECAUSE:

- With aggressive promotion of its enlightened packaging, it has outdistanced all competitors and now sells 30 million brushes a year.

- It was first to offer a sterilized, sealed brush and first with an all-transparent sealed tube.

- Its packaging-line methods set a new standard of efficiency in aseptic handling of a consumer product, as well as perfection of package detail.

- Its counter display techniques helped lead the drugstore into the new era of self-selection selling.

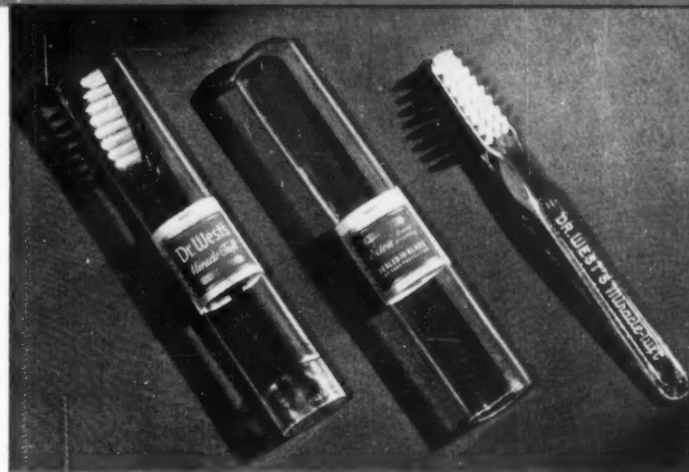
chandising, an appalling variety of germs could be found on brushes stocked by the average drug store.

As far back as 1921, when the first Dr. West's Toothbrushes reached the market, they had been packaged in tuck-end folding cartons carrying a printed reproduction of the product. Thus they were already far better protected than most of the brushes then being sold. However, it was clear to company officials that the packaging process would have to be carried a step further to be really effective. The ultimate objective was to keep the sterilized brush sealed until opened for use by the ultimate purchaser.

With a new sealed inner glassine package, which protected the brush against soilage and handling even if the outer carton was opened, Weeco in 1926 pushed the old "basket brush" right out of existence. Consumers were enthusiastic over the idea of a toothbrush which hadn't been thumbed by an unknown number of shoppers before reaching their own mouths. The hygienic features of the sealed inner package—said to have been the first adopted by any toothbrush manufacturer—were clearly set forth on the envelope itself: "Sterilized and sealed for your protection. This Dr. West's Toothbrush is sealed against contamination. Further sterilization is unnecessary."

Dr. West's sealed inner package, by elevating toothbrush merchandising to a new standard of cleanliness, marked Weeco's initial claim to *Packaging's Hall of Fame*. However, this important innovation was accompanied or succeeded by a number of other developments which made the choice of this month's *Hall of Fame* nominee even more logical.

Weeco's introduction in 1932 of the



TODAY'S PACKAGE is basically the same as one which started a revolution in toothbrush packaging in 1932—oval-shaped glass tube with sterile brush tamperproof sealed in sterile atmosphere. The shrink-type cellulose cap on this tube must be destroyed to be removed.

revolutionary sterilized glass tube package brought operating-room standards of sterility to a mass-produced and mass-merchandised consumer product.

Through the use of specially designed counter-display units which made it easy for the customer to select a toothbrush even when clerks were not immediately available, Dr. West's Toothbrush helped to lay the foundation for modern self-service merchandising in drug stores, supermarkets and related types of outlets.

Product improvements have kept pace with the company's advancements in packaging. Dr. West's was the first toothbrush (1932) to offer waterproofed bristles and in 1938 pioneered the introduction of superior synthetic "Exton" (nylon) bristling which did away with waterlogging, splitting and fraying of natural bris-

tles. For two years, under an arrangement with Du Pont, Dr. West's was the only toothbrush on the market with this type of bristle.

For years Dr. West's has been the most consistent large-scale advertiser in the toothbrush field and has constantly made superior packaging features a fundamental feature of its magazine ads, window displays and counter merchandising units. For the period between 1921 and 1951, cumulative advertising and promotional expenditures for Dr. West's toothbrushes totaled approximately \$20,500,000. Weeco's full-page color and black and white ads in such leading periodicals as *Life*, *Look*, *Saturday Evening Post*, *Parents'* and *Cosmopolitan* have long paced the entire toothbrush industry.

The sales leadership of the Dr. West's line of toothbrushes is unchal-

lenged. More than 400 million Dr. West's brushes have been sold in the past 30 years and the brand now claims more than 30 million regular users. Currently, sales are at the rate of more than 30 million brushes per year. In drug stores, still far and away the most important type of retail outlet for toothbrushes, Dr. West's outsells any other brand approximately three to one, with total sales exceeding those of the next three brands combined.

Weco Products Co., which today produces the Dr. West's Toothbrush along with Gainsborough hair nets, hairbrushes and powder puffs and Kee pre-packaged men's handkerchiefs, evolved from The Western Bottle Mfg. Co., a wholesale druggists' supply house established in Chicago in 1900.

All brushes sold in the domestic market are now produced in a modern plant at Toledo, while individual packaging operations are still centralized at Chicago. In January, 1922, the company formally discontinued its drug-sundry lines and entered the manufacturing field as The Western Co.—manufacturers of Weco Products.

The Dr. West's brushes were well received from the outset, with approximately 2 million selling the first year. But it was the first sealed package, in 1926, which lifted the line to the rank of top seller. The importance of creative packaging on sales was again dramatically demonstrated in 1932, during the depths of the depression, when sales received a definite impetus

through the introduction of the sterile glass tube—the first completely visible package ever used to merchandise toothbrushes.

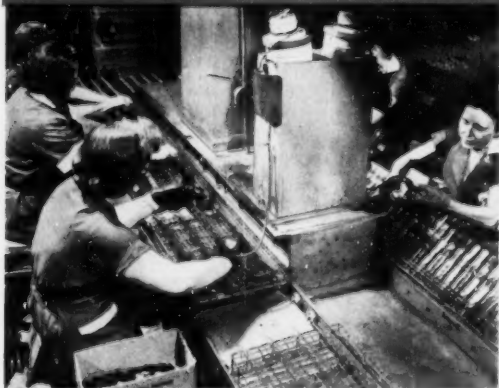
The original glassine inner package had a flap which was sealed by hand after the sterilized brush had been placed within it. Later, a manufacturer of cartoning machines produced two automatic machines for Weco which made the bags, inserted the brush, sealed the bag, transferred it into the carton and closed the carton. This marked a considerable advancement over the packaging practices utilized by most toothbrush manufacturers at that time.

Weco executives, including J. T. Woodside, then sales manager and since 1929 president of the organization, realized that the introduction of the sealed inner package couldn't change human nature. People would still have that innate urge to feel the texture of the bristles. So Weco decided to roll with the punch, creating a revolutionary type of counter display unit on which seven sample brushes, representing every size, texture and color available in the line, were mounted for convenient inspection. One of the first counter displays to utilize a mirrored plate-glass head piece, the unit rested on a wood base and required minimum counter space. It enabled prospective buyers to study the quality of the brushes without disturbing the stock. Behind the display—an important milestone in the evolution of self-service mer-

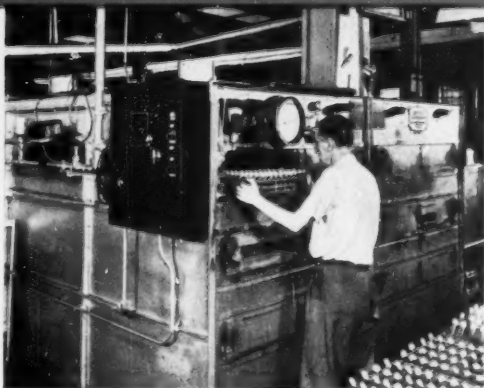
chandising—lay the sound psychological reasoning that a customer is half sold if you can persuade him (or her) just to take hold of the merchandise and examine it.

This display was a logical extension and improvement of the earliest Dr. West's counter units, introduced in 1921, which constituted one of the first real inside store selling tools ever offered to drug retailers. It was to be followed in later years by much more advanced models, including the first of the mass merchandisers or dental department fixtures (1938) which displayed the Dr. West's Miracle-Tuft and the budget-priced Dr. West's "Nylon" Toothbrushes side by side, offering samples of each price class for customer comparison, and the large cabinet-type unit (1940) which served as a simplifier, classifier and organizer of toothbrush stocks. Supplementing these dental-department-type displays have been smaller merchandising aids such as the Spinner (1945), fast-action merchandiser specially built for quick sales at high spot selling locations—next to the cash register, wrapping counter, cosmetic and cigar counter. Weco has always emphasized exclusive cabinets, maintaining that they eliminate customer confusion in self-service merchandising. A 1944 survey by A. C. Nielsen Co. showed that drug stores having Weco counter cabinets did 110% more business on Dr. West's Toothbrushes than other stores without cabinets. During the company's first quarter-century of

Packaging lines use aseptic techniques



TUBES IN RACKS on slant receive a drop of sterilizing fluid, then the brush and, finally, the cellulose cap.



STERILIZING of capped tubes takes place in oven at a constant vaporizing temperature for 80 minutes.

operation, more than one million counter cabinets were placed in retail drug stores. They served the primary purpose of getting the brushes out of open baskets and closed drawers, into the hands of potential buyers.

The sterile glass tube

Dr. West's peak achievement in packaging—the step that for 20 years has set the Dr. West's line of top-quality toothbrushes apart from its competitors—was the announcement of the sterile, sealed glass container in 1932. This new package, bold in its conception, elevated the company's packaging techniques to the same high level attained in the manufacture of the brushes themselves. At a time when the nation's economy had sunk to its lowest ebb, the sparkling new glass container, with its transparent, shrink-type cellulose seal, provided a dramatic merchandising lift and helped to solidify the dominant sales position of Dr. West's.

The new Dr. West's sterile glass tube, providing each toothbrush with its own gleaming showcase, was not born overnight. Its adoption was preceded by extensive tests and development work involving both the tube and the closure, as well as the packing procedure to be followed and the equipment necessary to create the desired sterile atmosphere within the package.

For the tube itself, Weeco turned to an organization having years of experience in the manufacture of test

tubes, vials and other exacting products of the glass maker's art. The glass company succeeded in extruding a uniform tube of oval cross-section which would fit the brushes closely and would not roll off counters or other flat surfaces.

Since each brush was to be sterilized after packaging, the matter of an effective closure for the glass tube presented a real problem. The closure had to lend itself to speedy application on the packaging line and bond itself tenaciously to the smooth surface of the glass container. Furthermore, it had to be of such a nature that pressure created within the tube during the oven phase of the sterilizing operation could escape safely. Finally, it was imperative that the seal be absolutely tight when the container emerged from the oven, that it be sturdy enough to withstand normal shocks of shipping and handling, and that it maintain a germ-proof barrier until stripped off the tube when the brush was to be withdrawn and placed in use.

The type of closure ultimately adopted was the transparent, shrink-type cellulose cap which is shipped and stored in a glycerine solution until ready for application to the containers. Upon evaporation of the solution and drying of the cellulose cap, it has the facility of contracting automatically, forming a tough, waterproof seal which can be broken only upon destruction and removal of the cellulose membrane across the mouth

of the container. Such seals had been used to some extent for small vials of pharmaceutical preparations, but their ultimate life under the contemplated service conditions was a matter of speculation. Also, the cap required for the Dr. West's tube was considerably larger than any cellulose seals used up to that time.

The experience of more than 20 years has amply verified the judgment of Weeco Products in selecting the shrink-type cellulose cap. Repeated laboratory tests, supplemented by thousands of shipments to all parts of the U.S. and to other parts of the globe for the export trade, have proved that the shelf life of the Dr. West's sealed, sterilized glass container is almost indefinite. Sample containers as old as 10 years have been opened and found to be as sterile as when they left the factory. During periods of epidemic, Dr. West's has taken occasion to check the efficacy of its glass package carefully in stricken areas. Brushes thus examined have always proved to be absolutely germ-free.

The cellulose-capped glass tube has proved to be so efficient a package and has come to be so unmistakably identified with the Dr. West's top line of Miracle-Tuft Toothbrushes that the container itself has undergone virtually no modification since its adoption in 1932. There have, of course, been periodic modifications of the printed label which is placed on the tube after the oven operation

usually associated with surgical products



THERMOPLASTIC LABELING is done on seven machines flanking conveyor for carrying finished tubes to sorting rack.



SELECTED by color and variety, tubes are placed in quickly set up "dozen" cartons. Note ingenious dividers.

and in the precise placement of the label on the container.

The present Miracle-Tuft label, like that used since the market introduction of the glass package, is of the wrap-around type, completely encircling the container horizontally at a point well below the center. This location leaves most of the tube completely transparent, setting the brush off to maximum advantage and permitting the shopper to discern the brush-head design (there are several optional types available) as well as the handle color. Against a red rectangular background with decorative gold border, the label features the Dr. West's Miracle-Tuft identification on the display panel. The back panel highlights the phrase, "water-proofed 'Extol' Brand Bristling," and the notation, "Sealed in glass for your protection." The bristle designation—hard, soft or medium—appears on both halves of the label. Supplementary copy on the border of the label, at the point where the sealed ends meet, reminds the buyer to "throw away glass tube—dry your brush in air." The standard Dr. West's glass container is not intended as a travel case for the brush, but designed to be discarded after opening. For shipment to some foreign countries, the packages are provided with a supplementary perforated rubber tip which may be placed on the container after the original closure has been removed.

Variations of the basic label, with the same red and gold color combination, are used throughout the Dr. West's line. For brushes which are to be sold through supermarkets—an increasingly important market outlet for toothbrushes, the basic label has an extension at the top in which the retail price is preprinted. Similar in general appearance to the standard label is the wrap-around label used on the Miracle-Tuft Denture Brush, a specially designed brush having bristles extending from both sides of the brush head. This brush, formerly sold in a window-type carton, is now packaged in a two-piece transparent plastic container molded of polystyrene. The two halves snap together securely, making it a travel case.

For many years, the Dr. West's labels were applied to the glass tubes with adhesive, requiring close inspection of the labeling operation to check for excess adhesive, which showed up as an unsightly smear on the transparent container. Beginning

Dr. West's
self-selection
display units
are mainstays
of every
drugstore
counter



SPECIAL APPEAL to mothers at school time. This "Little Red Schoolhouse" display unit is shipped to retailers set up with brushes.

in 1951, a change-over was made to the thermoplastic type of label, permitting higher labeling speeds and resulting in a much neater application.

Package production

Dr. West's Miracle-Tuft Toothbrushes move through the packaging department of Weco's Chicago plant. Finished brushes are shipped by truck from the factory in Toledo, securely packed in corrugated containers which hold four gross of brushes each. In the inter-plant shipping containers, the brushes are laid flat with the heads of alternating rows toward the opposite end of the package, eliminating any possible pressure from the next layer of brushes. A sheet of heavy waxed paper is placed between each two layers of brushes.

Prior to individual packaging, each brush receives its final inspection. At this stage, which completes a total of 32 inspections, brushes having imperfections are culled out.

The actual packaging operation begins on four duplicate packing lines. At the head of each line, operators withdraw the glass tubes from their shipping containers, tap them against the table surface to eject any possible foreign matter which might be present and place them, mouth upward, in specially designed wire racks which hold 48 tubes. The fact that the tubes rest at a slight angle

in the racks facilitates the manual insertion of the brushes into the tubes and application of the sterilizing solution.

Each loaded rack is pushed along on a roller-type conveyor to the next operator, who injects a 30-cc. drop of a sterilizing formulation into each tube by means of a syringe connected via a rubber tube to a container of the solution. Moving the filling spout swiftly over each row of toothbrushes, this operator meters the measured amount of material at a specific point on the side wall of the container. With her other hand, she places a toothbrush, head downward, in each tube and moves the rack to the next two operators. At this point, neither the brush nor the tube is yet sterile. Flowing down the inner side wall of the container, the sterilizing fluid does not come into contact with the handle of the brush.

The duty of the next two operators is to place the moist cellulose caps in position on the top of the tubes. Received at the plant in sealed drums containing a glycerine solution, the caps are placed in a perforated tumbling barrel which is revolved to drain excess moisture from them before they are taken to the packaging line. This procedure assures that the caps will not be loaded with solution which might flow down the sides of the tubes when they are applied. At the time that the caps are applied to the tubes, they are considerably larger



MASS DISPLAY gives the shopper a choice of every size, shape, color and bristle quality offered by Dr. West's.



SPOT SALE SPINNER is a newer unit. For high-traffic points, its four tiers revolve independently.



NEWER PRODUCT is the 2-in-1 denture brush, which comes in a convenient two-piece plastic travel case.

than the mouth of the container, but as they begin to dry shrinkage takes place.

Without delay, each rack of containers is transferred to a specially designed oven, approximately 35 ft. in length, equipped with 12 sets of moving conveyors to carry the tubes through the heating cycle during which the brushes and tubes are rendered completely sterile. A constant vaporizing temperature is maintained in the oven and a period of approximately 80 min. is required for a tray to pass completely through it. The oven can handle a maximum of approximately 720 gross of brushes per 8-hr. shift.

Several important things happen to the package during the oven operation. Exposure to the elevated temperatures vaporizes the sterilizing solution and causes it to be dispersed throughout the container, sterilizing each bristle of the toothbrush. This kills any bacteria or germs present in tube or brush. As the brushes remain in the cooker, the sterilizing vapor is drawn out past the edge of the cellulose cap before it has shrunk to its final skin-tight fit on the tube. Even after the cap has drawn up to its ultimate size, becoming completely transparent in the process, any extra vapor pressure within the tube diffuses out through the cellulose membrane, which is reported to have the facility of "breathing" without permitting the passage of bacteria. Steriliz-

ing vapors released in the oven are withdrawn by an exhaust system and conveyed out of the building.

Reaching the discharge end of the oven, the racks are removed and the sealed tubes placed in tote boxes according to styles, textures and colors. The tote boxes are then taken to the labeling department, where the thermoplastic labels are applied by a battery of seven labeling machines. These units are arranged on three sides of a short conveyor belt onto which labeled tubes are placed. At the end of the conveyor the tubes are assembled in tote boxes again, grouped by color, style and texture, and taken to packing tables where they are placed in folding cartons which hold one dozen brushes.

The attractive red and white cartons for the dozen packs are used in conjunction with die-cut liner trays which speed the packing operation and insure adequate protection for the tubes. Printed in letterpress on bleached manila lined chipboard, the carton is of the tuck-top style with automatic bottom which snaps into position when the box is set up. The packers set these boxes up quickly, then fold and insert the horizontal trays, each of which holds six of the Dr. West's tubes. The new-type boxes, adopted early in 1953, were preceded by a box of similar size and shape without the automatic bottom feature. In earlier years, the boxes used were of vertical design, holding

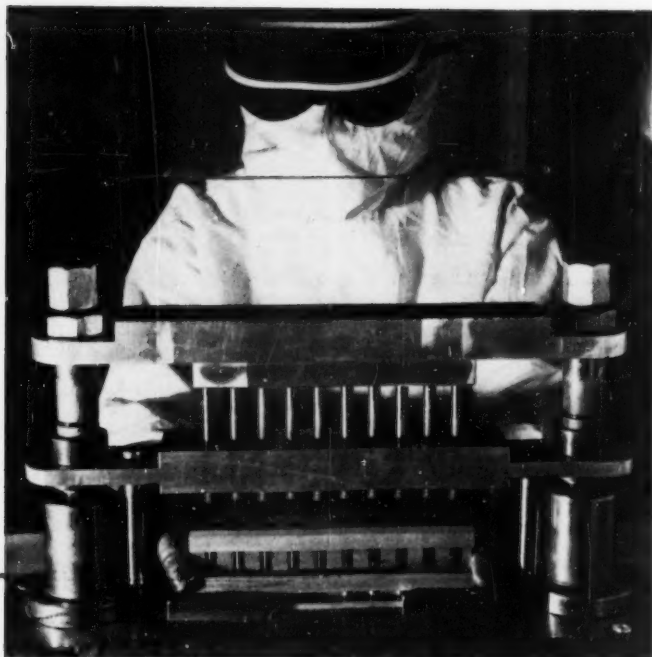
the tubes upright by means of partitions which had to be assembled and placed in the cartons. These boxes required more time on the packing line and also necessitated the use of supplementary corrugated pads in the shipping containers. With the new-type boxes, the pads have been eliminated, effecting an important packaging economy and speeding operations.

Point-of-sale display

The dozen packs, containing assorted colors and styles according to a definite packing formula (red handles are most popular, followed by green), are packed in corrugated shippers containing 12 of the boxes. However, not all of the brush tubes are packed in the dozen cartons; many are placed directly into special "deals" or store displays in which they move directly to the drug store or other retail outlet. This arrangement is popular with the busy druggist because all he has to do is to unpack the complete display and place it on the counter, ready to begin its job of self-service merchandising. The Little Red School House counter display, a cleverly designed unit which contains an assortment of child's and youth's Miracle-Tuft brushes, is an example of such a pre-packed unit in current use. It is intended to stimulate sales of toothbrushes to the 28 million children between the ages of two and 10.

(This article continued on page 178)

HIGH-SPEED



10 AT A TIME, Squibb-designed wood rack carries cartridge sections of syringes throughout plugging and filling operations. Here a special pneumatic press delicately positions 10 stoppers simultaneously.

FILLING of antibiotic is accomplished with same rack, pushing 10 vials rapidly under the filling nozzle. This operation shows the liquid filling of Unimatic, which contains a penicillin suspension.



The rapid rise in popularity of the one-shot disposable syringe, which serves both as the package and as the means of administering injection-type antibiotic drugs,* has created new packaging-line problems for drug manufacturers. Naturally, anything so complex as the assembly and filling of a tiny cartridge complete with needle and plunger cannot be handled by normal aseptic packaging-line techniques. Yet a dozen or more manufacturers of antibiotics are currently using a dozen different versions of these admirably functional packages and are under constant pressure to step up production.

One of the most advanced systems is currently in operation at E. R. Squibb & Sons' division of Mathieson Chemical Corp., manufacturing laboratories in New Brunswick, N. J. The Squibb line is particularly noteworthy because it has been developed to handle two different types of disposable injectables, commonly known as the "wet" and "dry" types.

Due primarily to a system for handling the cartridges 10 at a time, Squibb is able to turn out as high as 60 packages a minute. The principles by which such speed is attained, with all the meticulous care and repeated inspections required for such a product, should interest all packagers.

Squibb calls its two types of disposable syringes the "Duomatic" and the "Unimatic." They differ in that the Duomatic cartridge contains the drug in powdered form and, sealed off from it, a diluent which at the moment of use transforms it into an injectable fluid, while the Unimatic is a wet fill. The formulas differ in strength and composition; the choice is up to the physician.

Except for the two-compartment fill in one unit and the single wet fill in the other, the same methods are used to handle both syringes. Conventional aseptic drug-filling equipment has been adapted to feed the liquid and, in the case of the Duomatic, the powder into the cartridges.

The components of both types of injection packages are: (1) a sterile plastic syringe with a 20-gauge nee-

* See "Disposable Injectables," MODERN PACKAGING, Jan., 1953, p. 105.

INJECTABLES

Squibb meets rising demand for one-shot syringe packaging of antibiotics with 10-at-a-time filling line

dle and plastic guard, (2) the glass cartridge which receives the powdered antibiotic and the diluent and (3) a short plunger plus the necessary rubber stoppers.

As a preliminary step the glass cartridges are imprinted with the Squibb legend, control numbers and expiration date. After this all units of the final assembly—that is, the syringe needle guard, the cartridge and the stoppers—are thoroughly washed and sterilized. As part of this preparation, the cartridges and stoppers are silicone treated to guarantee complete withdrawal of the product and free movement of stoppers during use.

Actual filling is done on a continuous line. Much of the credit for the relatively good speed of the line goes to the Squibb-designed methods of handling the glass cartridges in units of 10. Conceivably, the cartridges could be handled individually, but that would require more time.

As the line is now working, cartridges are placed in clips of 10 in especially designed metal racks which are thereafter handled as a unit. Center stoppers of the Duomatic type are manually started in the cartridges, but are precisely positioned by a pneumatic press designed by

Squibb to seat all 10 stoppers at a single stroke. At another station the diluent is filled against the center stoppers. The stopper above the diluent is then started manually, seated and vented by the same type of pneumatic press used for the center stopper.

So that the open end of the Duomatic cartridge can be filled with the powder, the clip is inverted and transferred to a second fixture. With the top end open, the clips move through a filling machine which delivers powder to the cartridges at a rate of 60 per minute. It is the speed of this machine that paces the entire filling operation.

Once again the 10-at-a-time pneumatic press is used to seat the final flange stoppers after they are started manually. Cartridges are then removed from the clips and closely inspected for contents and position of the stoppers. Finally, the rim of the flange stopper is lubricated and the cartridge is assembled to the syringe.

All these operations are performed under rigidly controlled aseptic techniques. In addition, and as part of regular laboratory procedure, the powder and diluent content are accurately checked by a system of sta-

tistical quality control. When completely assembled, the disposable syringe is packaged in a sealed individual carton.

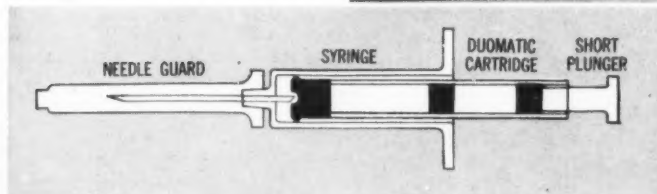
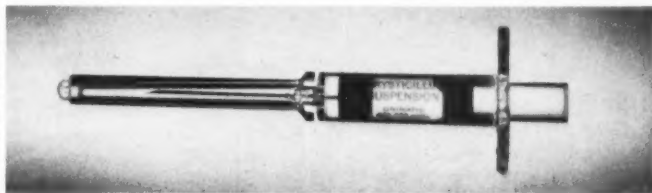
While the assembly area is strictly sterile, the final packaging of five syringes to a paperboard carrier and then into shipping cases is done in a room with temperature and humidity controlled and air filtered.

Except for the dry fill and center stopper, the same methods and equipment are employed to assemble Squibb's Unimatic. Again the individual cartridges are fed through the line in clips of 10.

Squibb has reduced tolerances for cartridges and stoppers to a minimum to secure effective closures and to permit smooth operation of the unit for aspiration and for the ejection of the product.

CREDITS: Glass cartridges and syringes, Becton, Dickinson & Co., Rutherford, N. J. Polystyrene needle guard and body, PM Industries, Inc., 280 Fairfield Ave., Stamford, Conn. "Perjektum" liquid-filling equipment, Popper & Sons, Inc., 300 Fourth Ave., New York 10. "Accofil" powder-filling equipment, American Cyanamid Co., 3 Rockefeller Pl., New York. Stoppers, The West Co., Inc., Phoenixville, Pa.

UNIMATIC syringe, having a single compartment for liquid drug, is shown here complete, ready for physician's use and discard. It differs from Duomatic only in single-compartment construction, is filled and assembled by same methods.



DUOMATIC construction, shown here by diagram, keeps antibiotic powder at lower end dry until a push on short plunger forces diluent down past center stopper into powder compartment. These packages are now filled 60 a minute.

Design

Packages that change with the seasons



A sales increase of 500% has been reported for Bunny Soft children's socks since the introduction less than two years ago of these four-color-printed cellophane bags that change with the changing seasons. New package designs have been introduced by Bunny Soft every four months for the past three selling seasons and each change has resulted in increased sales. Each bag holds a four-pair assortment of socks. Each new set of three matching packages is a complete change in design except for the lettering of the brand name. A pattern of giraffes on backgrounds of green, blue and yellow was introduced last fall; red, blue and green diagonal striping was used for the 1952 Christmas season; for the spring a parasol pattern in fuchsia on a background of yellow, blue and green was used. The manufacturer is convinced that a new package each season is as important as a new line.

CREDIT: Bags, Lassiter Corp., Charlotte, N. C.

Freshness guaranteed



The selling power of colorful printing, a freshness guarantee and a prominent price spot on transparent produce packages is indicated by the new printed cellophane bags for head lettuce, introduced by Pick-N-Pay Stores of Cleveland. The new package is reported to have increased head-lettuce sales tremendously. The new bags carry trademark, a large circular price spot and the message "Guaranteed Fresh Produce by Pick-N-Pay," yet there is plenty of unprinted area for the shopper to get a good look at each head before she buys. The increased sales is attributed to the attention drawn to produce displays by the colorful red and white printing and to the increased confidence customers place in the stores' produce as a result of the freshness guarantee. A plus factor is the advertising value of the trade name remaining with the lettuce right into the customer's home.

CREDIT: Bags, The Dobeckmun Co., Cleveland, Ohio.

Histories

Tea for two

A sturdy tea table and two chairs can be made out of the corrugated fibreboard box that Plastic Art Toy Corp. of America uses for packaging a new toy tea set. Designed to appeal to budget-minded parents, the entire set, complete with meal-sized plastic dishes in assorted colors and utensils, retails for only \$2.98.

The outer box forms the table top. Four wooden legs that hold up the table top are packed in the box. The two corrugated-board chairs are quickly and easily assembled and so constructed, according to the company, that they can sustain a weight of 250 lbs. The box, which looks like a conventional toy package, is gaily decorated in colorful toy blocks and playful animals. The entire set was created with the thought of making mealtime fun for youngsters with stubborn appetites.

CREDIT: Corrugated container, Shelton Mfg. Co., Inc., Newark, N. J.



Functional styrene foam

A circular piece of polystyrene foam cut to hold capsules in individual pockets is an interesting and most practical packaging application by the pharmaceutical industry for this plastic material. It serves as both a protective packaging and display material. Thirty Buticaps, special-formula capsules produced by the Stanley Drug Products Co., fit firmly into the polystyrene foam disk. A circular acetate disk with corresponding holes fits against the polystyrene foam, with the capsules projecting. This prevents the user's fingers from coming in contact with the rough surface of the polystyrene foam. A pressure-sensitive label is applied to this acetate disk. A heavier-gauge acetate fits like a canopy over the entire tray of the two-piece hinged paperboard box.

CREDITS: Polystyrene foam (Styrofoam), The Dow Chemical Co., Midland, Mich. Acetate sheet (Kodapak IV), Eastman Kodak Co., Rochester, N. Y. Box, Pacific Box Co., Portland, Ore.



Pictorial



FAITHFUL REPRODUCTIONS of dinnerware sets on corrugated containers stimulate impulse sales and make it unnecessary to open the pre-packs. Close-up of Will-o-the-Wisp set shows effective use of design and color.

Alert manufacturers are beginning to recognize that their own shipping containers constitute an important addition to their regular advertising media. A recent survey revealed, for example, that at least 232 persons saw a packaged product—in this case a television set packed in a printed corrugated shipping case—between the time it left the factory and its time of delivery to the ultimate buyer.* By utilizing the free space already available on his shipping containers, the manufacturer can thus greatly increase visual contacts with the public, stimulating potential buyer interest and paving the way to future sales.

While mere product-name identification on the sides of the shipping container is a step in the right direc-

tion, it lacks the sales-inducing effectiveness of an actual pictorial representation of the product. Line illustrations carry the process a step further, but have definite technical limitations—notably the lack of tonal gradations required for faithful photographic reproduction. Halftone illustrations mark the ultimate in pictorial representation. The relative coarseness of the corrugated surface and the high printing-plate pressures involved in the halftone process, however, have not permitted successful application of this technique to corrugated containers.

Recently the perfection of a specialized printing technique for corrugated board has opened the way to greater advertising effectiveness for shipping containers of this type. Affording tonal gradation reproduction on corrugated board surfaces, this pro-

cess, protected by patents pending, utilizes a flexigraphic method adaptable to letterpress or gravure and employs specially made plates to reproduce the full beauty and detail of a retouched photograph or wash drawing. Over-all patterns and colors also lend themselves ideally to application by the process.

The method is especially designed to be used on double-faced corrugated liner stock in either a single color or a variety of colors. Its successful application stems largely from the fact that whereas pressures usually associated with letterpress printing may run as high as 1,200 p.s.i., this method involves very light pressures which maintain the compressive strength of the corrugated media.

For most satisfactory results the process is used with a well-calendered stock or smooth-finish board.

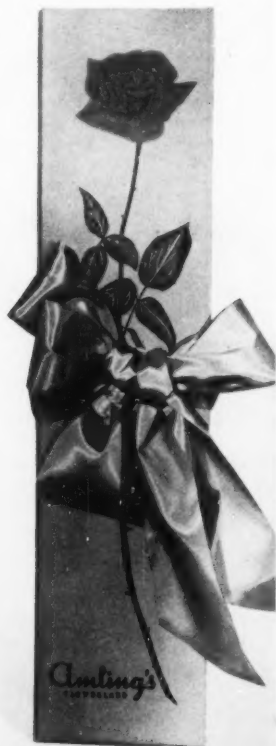
*See editorial, "Traveling Billboards," MODERN PACKAGING, JUNE, 1953, p. 4.

printing on corrugated

New process permitting multicolor tonal gradations
may give greater advertising impact to the shipping case

Board of "C" flute or, whenever possible, "B" flute is preferred to "A" flute, for the latter's 36 flutes to a lineal foot can present a ripple or "washboard" printing surface. This results in an impression which is heavier on the peak of each flute and lighter in the "valleys," producing a variable appearance due to unequal printing pressures. "C" flute, with 42

REALISTIC ROSE printed by special process in combination with line-drawing technique for stem and leaves brings new eye appeal to corrugated containers used by Amling's to deliver roses to florists. Red overprinting light green gives tonal depth to shading.



ridges per lineal foot, presents a firmer printing surface, while "B" flute, having 50 close-set peaks per foot, affords the most satisfactory results.

Press requirements for the process involve greater care than printing with conventional dies, with somewhat slower feeds and speeds. Care must be exercised in controlling the fountain and in maintaining proper printing pressures. Irregular objects such as food products, vegetables and fabrics lend themselves best to reproduction by this process. Smooth objects such as bottles, faces, tools and machined parts are more difficult to reproduce, but may be handled with excellent results, as shown in some of the representative containers illustrated herewith.

Simulating the appearance of a rose on a corrugated shipping container is a tough assignment, but Amling's, a major Chicago wholesale florist, has achieved a very realistic effect. This organization formerly used a plain chipboard container, tinted green in the beater, for shipments of roses to florists. Out of a decision to change to a new package which

would not only identify Amling's favorably but also suggest the beauty of the actual blooms came a container which is outstanding in both appearance and construction. Stock for the new corrugated container—200-lb. test board—is first tinted green by flexigraphic process to match the color of the earlier chipboard carton. After the customary corrugating operation, the large single rose is printed in rich natural color by special process and the dark green stem and leaves are reproduced as a regular line illustration, using combination plates. On the rose, red overprints the green to provide a realistic brown shading. This is accomplished with a single pass through the press.

An interesting construction feature of the new rose container is the use of a die-cut hand hole at the top by means of which the box is lifted and carried. This assures that it will be kept in an upright position for maximum protection to the flowers within the box.

An insert placed in the bottom of the package is die cut to hold a container with water, into which the rose

WASH-DRAWING technique may be reproduced on corrugated by new process as illustrated by this counter display shipper for four-piece Star electric clipper hair-cutting set.



METALLIC INK brings out highlights and other features of this coffee maker when printed by new process on shipping container.





BILLBOARD EFFECT is achieved by photographic reproduction of Admiral clock radio against dark background. All-over basket-weave motif ties in with other Admiral packages for family tie-in.



RELATED SELLING is done by Golde Mfg. Co. by use of film-strip motif on boxes framing illustrations of a variety of photographic accessories the company makes.

stems are inserted to keep the flowers fresh until delivered to the retail florist. A final touch is a handsomely tied red ribbon which holds the container closed.

Allover Mfg. Co., Racine, Wis., has taken advantage of the new printing technique for a corrugated package to display its Star four-piece hair-cutting set. The sturdy container arrives at the retail-store counter with no corner or tray breakage and also serves as a self mailer or shipper. The package is printed on bleached manila stock in red and black, with modulation and shading in the black. The four items in the set—an electric clipper, two types of combs and a pair of shears—are held in place in die-cut corrugated pads. A display panel which folds back when the box is opened illustrates each item and also shows the clipper in use. Illustrations are handled in a wash-drawing technique with final results closely approximating the appearance of an actual halftone.

When printed with illustrations faithfully duplicating the appearance of the actual merchandise, corrugated containers can be utilized for retail-

store displays with strong buyer appeal. Packaged dinnerware sets made by Premier Products, Inc., Chicago, and Mel-Jax Mfg. Co., Chicago, illustrate the mass-display possibilities of such containers. With illustrations faithfully reproducing the attractive colors and patterns of the actual dinnerware, these packages stimulate impulse purchases and enable sales without clerk assistance and without the necessity of opening the sealed containers. The wide range of color treatments represented by the Golden Star, Dixie Dogwood and Will-o-the-Wisp dinnerware containers illustrates the versatility of the specialized printing technique employed.

Hardware items, appliances, etc., usually require the protection of a sturdy corrugated container so that they reach the consumer in top condition. Augmented by sales-inducing product illustrations, such packages can be converted into an important merchandising asset. Dominion Electric Corp., Mansfield, Ohio, uses a corrugated container for its electric coffee maker that makes effective use of a solid silver metallic color which

closely simulates the chrome finish of the actual appliance. The use of the metallic finish on the coffee maker reproduction, combined with black and two tones of red for maximum display impact, makes this package an outstanding one on the retail-store counter. For merchandise of this type, a conventional line drawing on a package, however well executed, cannot convey the gleam of the polished metal surfaces or the highlights which catch the eye.

A corrugated container employed by Admiral Corp. for a clock radio with molded plastic cabinet offers an interesting combination of an all-over basketweave pattern and an authentic reproduction of the set itself. Almost billboard-like in its visual impact, the display panel of the container, which sets off the photograph of the clock radio against a dark background, is notable for the fine details of the reproduction, comparable to those found on many printed labels, despite the fact that the printing is applied directly to the corrugated surface. This same type of background is also used on a corrugated (This article continued on page 181)

PICTURE IDENTIFICATION aids warehouse employees in picking out containers of knocked-down furniture.



VIGNETTES of serving suggestions provide appetite appeal for shipping container for Winner Brand Canadian Style bacon.





BASKETS woven by nervous patients provided the idea for packaging assortments of bottles and bags of herbs as gift items.



SHELF CABINETS made by hand are attractive wood containers in Pennsylvania Dutch design.

The gift-shop touch

Nationwide specialty market for spices and herbs has grown from a woman's desire to keep basket weavers at work

Usually the business comes first and the package later. But on a farm near York, Pa., a thriving 14-year old spice and herb business—the kind that many American women dream of establishing—has grown from a package.

A York, Pa., nurse, who decided basket weaving was a good outlet for nervous patients, found in a few months there were more baskets than the market could absorb. Why not fill them with attractive bottles and bags of herbs and spices, and offer them as attractive gift items through gift shops?

The idea caught hold so quickly that when Miss Florence V. Hoff, the founder, was killed in an automobile accident in 1944, a successful business was left without a helmsman. Her stepmother, Mrs. Carlton L. Hoff, turned her executive talents to the job and today the Hoff Condiments business has reached national proportions strictly through gift-shop outlets—not only because of Mrs. Hoff's continued interest in experimenting with all types of herbs, but because she realized that continued variety in decorative packaging was essential to

maintain the interest and intrigue the fancy of new gift shoppers year after year.

While her predecessor designed all her own packages, Mrs. Carlton Hoff appointed another York woman, Mrs. Betty Rosenmiller, to take over that job.

Together they have continued not only to use the hand-made baskets, but to be constantly on the lookout for other types of decorative containers to give continually new display interest to Hoff products—a study which is essential to every small business dependent upon the novelty appeal of its packages.

Local workers in woodcraft are employed to make a variety of herb cabinets that serve as packages and which are designed to give a touch of Pennsylvania Dutch décor when hung on a kitchen wall.

The addition of specially packaged teas led to a search for decorated metal containers purchased outside the home community. Some of these handsome containers are purchased through an importer. Mrs. Hoff also discovered a line of beautiful lithographed metal containers made in Holland. She began importing them for the packaging of her own products and found the demand so great that she has become the American distributor for a selection of these containers in the United States, thereby adding a new phase of operation to the little business that started as a woman's hobby.

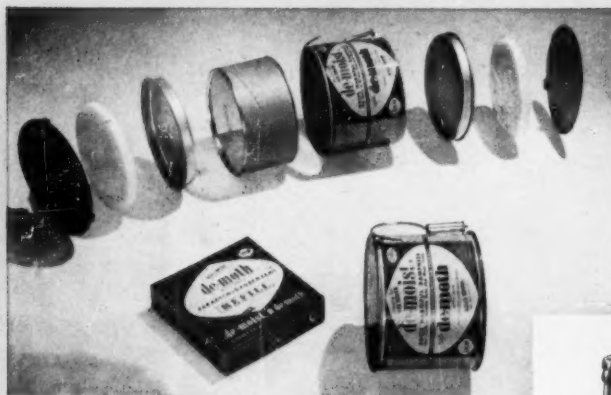
Mrs. Hoff's success is a striking example of the important role that the package can play in establishing a profitable small business in capable hands.

CREDITS: Baskets, Quon-Quon Co., 1823 S. Hope St., Los Angeles, Calif. Wood containers, Paul Spangler, York, Pa. Metal containers from Holland distributed by Hoff, R.D. 7, York, Pa.

FROM HOLLAND come these handsome lithographed containers of metal used for the packaging of assorted types of teas.



PACKAGING



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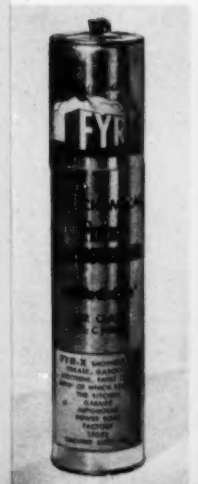
1 Success of its De-Moist package—the functional can with built-in, self-indicating scale for a dehydrating agent used in home closets (see “Tell-Tale De Moist,” *Modern Packaging*, Nov., 1952, p. 116)—led G. N. Coughlan Co. to develop a new combination container incorporating also moth-killing paradichlorobenzene disks called De-Moist De-Moth. Design, Gerald Stahl, New York. Metal cans, Atlantic Can Co., New York. Fibre canisters, Harcord Mfg. Co., Jersey City, N.J. Refill cartons, William W. Fitzhugh, Inc., Brooklyn.

2 Increasing use of low-pressure aerosols creates new problems in container design. In planning the Duray Silicone Water Repellent, where no family resemblance was a factor, the designer has made good use of a duck as a stylized pictorial device to get over quickly the idea of a water repellent. Design, E. Leonard Koppel, New York. Container, Crown Can Co., Philadelphia. Valve and closure, Clayton Pressure Products Co., St. Louis, Mo., and Precision Valve Co., Yonkers, N.Y.

3 To prevent company drivers or dealers from making errors when empties are collected, new throw-away bottles for Dad's Root Beer have been made of clear glass as opposed to the amber shade of the old returnable bottles. Bottles, Crown Glass Corp., Chicago. Caps, Crown Cork & Seal Co., Cincinnati. Labels, Imperial Lithographing Co., Milwaukee.

4 Safety equipment—hats, helmets, safety belts, etc.—is packaged by E. D. Bullard Co. in transparent poly-

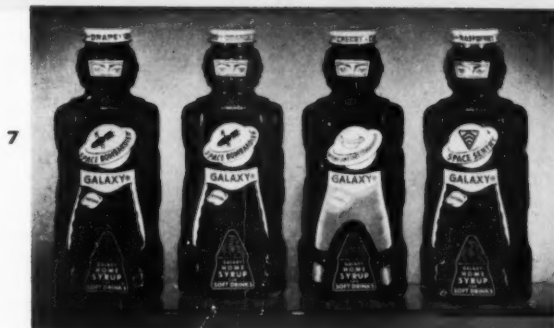
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PAGEANT



ethylene bags printed with the company's name, trademark and descriptive copy. In bags, the equipment will remain clean even if stored on factory shelves for long periods. Another advantage is that the trade name is always kept before the user. Bags have round sealed bottoms and open tops. The equipment is slipped into the bag and the bag folded under. Bags, Mehl Mfg. Co., Div. of Sydney-Thomas Corp., Cincinnati, Ohio.

5 Wrap-around, laminated-foil labels are applied to paperboard containers for Fyr-X, a dry chemical home fire extinguisher made by Alerting Systems, Inc. Metallic appearance of the cylinder helps establish the item as a quality extinguisher. Coloring is red, yellow and blue. Large type gives operation instructions. Foil lamination, Milprint, Inc., Milwaukee. Metal-end fibre tube, The Canister Corp., Phillipsburg, N. J.

6 An economical substitute for conventional bulk-onion packages is this king-sized mesh-window paper shipping bag that combines product protection, visibility, ventilation and brand identity for Virgil M. Sprinkle & Son's Golden Rule onions. Made of wet-strength paper, triplex construction, the 50-lb. bag uses special moisture-resistant adhesive to bond the mesh strands between the paper walls. "Vent-Vu" bag, Union Bag & Paper Corp., New York.

7 Timely bid for the young market is made by "space man" character bottles for Galaxy Home Syrup for Soft Drinks, put out by the High Rock Ginger Ale Co. The containers are applied-color labeled and have slotted metal

closures, making them re-usable as coin banks. They portray 10 different rank designations as shown by the two space bombardiers, interplanetary commander and space sentry illustrated. Bottle caps, Owens-Illinois Glass Co., Toledo.

8 The Mann Co. has extended the multiple unit-pack idea to the cracker-sandwich field by merchandising six individually wrapped packages of Mann's Peanut Butter Cheese Sandwiches in a printed cellophane bag. Individual wraps are of amber cellophane. Wraps and bags, The Dobeckmun Co., Cleveland.

9 Egg cartons with transparent acetate windows, introduced in Canada, are reported successful in stimulating sales for Steinberg's Food Stores, Ltd., Montreal. The carton prevents customer mishandling and its double windows provide ready appraisal of color and size of the eggs. Cartons, Globe Paper Box Co., Montreal. Acetate film, Celanese Corp. of America, New York.

10 This cushioned package for Brigham's of Boston's peanut brittle minimizes breakage, yet has strong eye appeal for impulse buying. A partitioned corrugated tray, shipped flat, is set up with the aid of a jig and fitted with a standard window-box cover. Small squares of corrugated prevent sticking of the product in warm weather. The box is machine wrapped in cellophane and is said to be more economical than conventional packages with corrugated inserts. Package and "Corrodek" corrugated, Sherman Paper Products Corp., Newton Upper Falls, Mass.

Carding techniques

Sturdy, self-selling, die-cut and
stapled packages make Monowatt line
a leader among electrical specialties

With self selection spreading to every type of retail outlet, the carded package—on which an attached item is completely visible for customer inspection, accompanied by full selling data—has become the ideal vehicle for many kinds of merchandise. It spans the gap between the helter-skelter of open bulk selling and the closed package that doesn't put the merchandise on view.

The variety stores were the original proving ground for the carded package, but today—with department stores going in strong for self selection, supermarkets selling more and more non-food items, and practically every other type of retail outlet adapting self-selling methods—there is a demand for improved techniques in producing the carded package.

The experience of a leader whose merchandising program for electrical specialties has been built around well planned and carefully engineered carded packages should therefore be of interest to all producers of carded merchandise.

SIMULATING APPLICATION of the product on the cards by arrangement of artwork, die cutting and stapling shows how items work and creates impulse to buy. The cards are self-selling units for counter bins, windows or plaque display as shown below.



In 1947, Monowatt, a department of General Electric Co. located in Providence, R.I., began introducing a line of household electrical accessories to complement its established line of wiring devices and cord sets. The new line of "specialties" now includes closet lights, hang-up night lights, lamp-wiring kits, clamp plugs and taps, silent mercury switches, auto spotlights and handy lights for emergency repairs.

These products, of course, could have been packaged in a variety of ways, but because they were planned for wide selling through variety and chain stores as well as independent hardware, drug and electrical stores, the need for packages that could do the whole selling job was recognized from the start.

The first requisite was to show the products so that shoppers could see them at the point of sale. The Monowatt specialty products are largely impulse items. Seeing them creates the desire to buy, but unless they are demonstrated in a manner that illustrates how they are to be used, the impulse to buy is not created.

The carded display package offered the most economical and efficient way to permit this actual consumer inspection. And by the use of die cutting, stapling and properly prepared artwork, Monowatt has developed a technique for designing carded packages that actually simulates the application of the products. The shopper can see at a glance, for instance, how a hang-up night light or a three-way-bulb lamp-wiring kit is used by the way it is arranged in

juxtaposition to the illustrative treatment on the display card.

The carded package has many other advantages: (1) Its colorful appearance is an attention getter. (2) It provides product identity and gives the prominence to brand at the point of sale so essential today as a tie-up with preselling of brand in advertising programs. (3) It offers a place for the presentation of selling copy to promote outstanding features of the product. (4) It offers a place for the printing of instructions on how to use and care for the product. (5) It gives protection to the product and facilitates handling in shipment and in stock keeping. This is particularly important in the case of electrical items where cords not securely fastened could be an exasperation to store per-

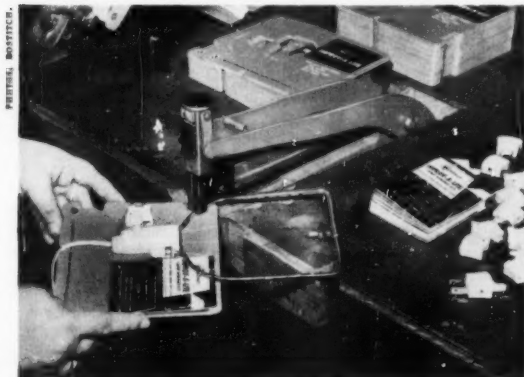
sonnel. (6) Properly planned, the cards are equally effective for individual and mass display. A free-standing feature such as an easel is often desirable. (7) Carded packaging is low cost in relation to total product-manufacturing costs. (8) It makes a line of merchandise more attractive to buyers and retail dealers because of its aid to them in selling.

Monowatt has been able to enjoy the benefits of carded display packaging to the fullest because of its intensive study of this packaging medium as a selling tool. Experience has taught that size must be determined in proportion to the size of the products and the bin space that will be allotted in the retail outlet. Too much excess card area, it has been found, reduces the impact of product presen-



STAPLING that supplements die cutting assures secure fastening of plugs and other parts which might otherwise work loose from cards. Easel backs provide an opportunity for versatility in display.

FOOT-OPERATED unit applies staples. Deep-throat stapling heads permit staples to be placed well in on large card areas.



WINDING DEVISE attaches cords neatly to packages. Where necessary, booklet is also attached to the card.





BIN DIMENSIONS of variety-store counters are important factor in determining size of cards used. Sometimes carded packages are supported by point-of-sale display pieces as shown by this actual counter arrangement.

tation, yet too small a card is inadequate for proper coverage of the selling points. A proper balance must be struck between product and copy display space. Card size is usually established by the sales promotion department, depending upon the "story" to be told, the number of items needed per card and the type of display (counter, window or plaque) that is required.

In developing a package, sales promotion's advertising design section works up several approaches to product and copy display and incorporates these into layout roughs, reviewing with the methods department the best means of attaching the product to a display card. The methods department tests sample cards under conditions that approximate those of actual shipment and retail handling, then recommends a weight and type of board that will do the job most efficiently.

Once the mounting problem has been solved, the advertising design section tests different combinations of color, type, illustration and layout treatment. The most effective approach is committed to final artwork for the new package. Since the card is laid out originally with a view to facilitating assembly techniques, the methods department draws up the

final die patterns for the card's cut-outs.

Die cuts are used as widely as possible for the fastenings because they preclude the use of supplementary fastenings and permit great versatility in package design. However, there are many instances where the die cut is not sufficient to give the secure fastening necessary to keep the items securely affixed to the cards or where the die cut would be too elaborate for economical production.

Although Monowatt uses some wire-tie fastenings, the company has found modern stapling equipment to be one of the most efficient methods for supplementary fastenings. Stapling allows the items to be fastened to the cards without damage to merchandise. It permits fast production at very low cost and requires very little training time for operators.

Carding at Monowatt is done right on the assembly lines, usually as part of the final operation just before the items are packed into shipping cartons. The items are placed by hand into the die cuts. Winding devices are used for neat application of the electrical cords to the cards. Stapling is done by one motorized and two foot-operated stapling machines. Standard machines have been set up with deep-throat stapling heads

to permit the staples to be placed well in on the large card areas. Engineers from the firm supplying the stapling equipment assisted in setting up initial equipment and determining the correct types of staples for each job. This saved much valuable time in the development stage.

The Monowatt design group strives to keep the cost of each package as low as possible, in relation to the total product manufacturing cost, without impairing its effectiveness in presenting and self selling the product. Estimates are based on the size of the card, the type and finish of board used, the amount of printing and the number of colors used, the amount of die cutting necessary and the quantities involved, plus labor costs for assembling the cards and exterior packaging for shipping. The product display cards and the exterior packaging are planned together to provide adequate support and protection for the product when packed for shipment. Placement of the carded products in the shipping carton is prescribed by rigid specifications.

Another important detail of Monowatt's carded packages is the manner in which they are planned for versatility in display. Each is designed for counter selling in the bins of the variety stores, but many are also planned so that they may be used singly as easel displays either on the counter or in a window, or so that they may be affixed to wall plaques such as are often used in hardware or electrical stores for selling from display samples. The packages are sometimes supported by additional point-of-sale display material, but each in itself must be a unit designed to do the whole selling job, if necessary, by showing the product to the best advantage, attracting the consumer to it, telling him all about how to use it, why it is the best of its kind he can buy and how much it costs. This kind of packaging has helped make Monowatt a leader in the sale of electrical specialties and has contributed to the success of Monowatt's entire line of electric supplies.

CREDITS: Cards, Dancyger Mfg. Co., 4707 Detroit Ave., Cleveland; Dennison Mfg. Co., Framingham, Mass.; Hercules Paper Box Co., 224 Cherry St., Bridgeport, Conn.; Pollock Poster Print Co., 869 Main St., Buffalo, N. Y. Display pieces, Pollock Poster Print Co. and Hercules Paper Box Co. Stapling machines and staples, Bostitch, Westerly, R. I.

Pre-engineered shipping package

Calnevar saw packaging as a vital
part of product planning.

Result: a landoffice business
on new wire hub caps

EXPLODED VIEW shows components of scratchproof package for four highly polished wire hub caps, each firmly positioned and separated by ring below and sunburst above. All components are 200-lb.-test corrugated.

Designing a new product with its shipping package as an integral part of its engineering—rather than designing the carton as an afterthought—is the sound technique introduced into the automotive-accessory industry by the Calnevar Co., Los Angeles, in connection with the national wire-wheel hub cap fad it started early this year.

The new principle has proved so successful that it is now standard for other Calnevar products. Already it has saved, the company says, thousands of dollars. By forestalling damage it has eliminated the problems of returns from this cause during shipping or handling. The new con-

tainer is so simple to pack that production time has been cut substantially.

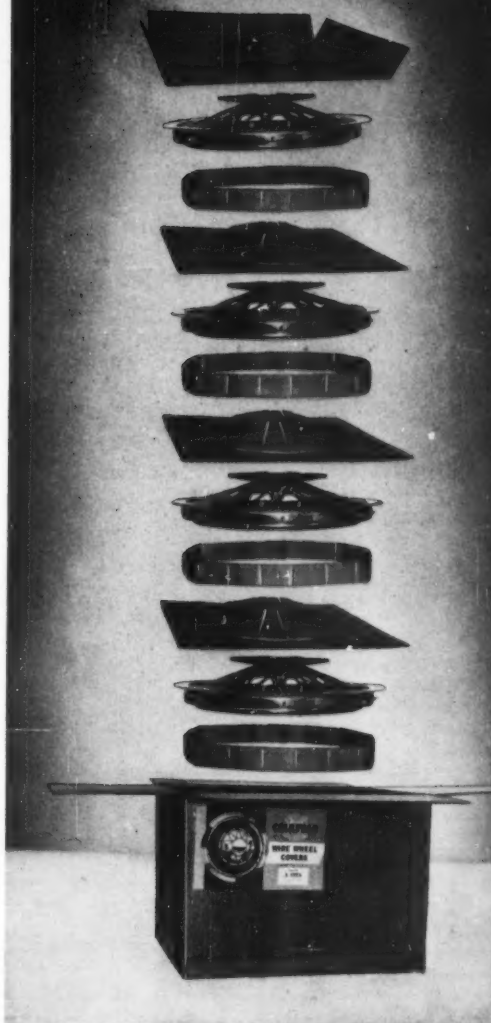
Most important single benefit brought about by the use of the new package is the impressive effect upon the company's distributor-dealer-jobber relations. The damage-proof factor, together with the carton's ability to hold up even when stacked 24 ft. high (to utilize critically short warehouse space) add up to skyrocketing sales.

The practical application of such techniques to nearly every phase of production and sales, constant experimentation and the application of a hard-won knowledge of mass-

consumer psychology make up the secret of Calnevar's success. These methods have helped the company to grow from a one-man organization in 1938 to the largest manufacturer of automotive-wheel accessory replacements in the nation.

The company was started as the American Specialties Co. by Calnevar's president, Fred Plotkin, to merchandise an experiment.

American automobiles had only recently made the change-over to metal-wheel stampings from welded-wire wheels. His idea was to cover the ugly stampings with full chromium hub caps. The idea caught on like wildfire. By 1940 most Detroit





PRODUCTION has been speeded and costs cut substantially by easy-to-pack carton, combined with new conveyor. Final operation is stapling carton shut.



CLOSE-UP of automatic stapler, which closes top and bottom, eliminates use of tape.

manufacturers had adopted his "ripple-wheel disks." His flare for anticipating public tastes did not desert him. New products brought success upon success. By the end of 1952 the Calnevar Co. had manufactured and sold more than 10 million wheel covers.

Calnevar differs from most other automotive-accessory manufacturing companies who are merely "packagers." These concerns order stampings from one source, have them plated at another and delivered to a warehouse where they are boxed and shipped.

Like the "packagers" (and many other manufacturers today), how-

ever, Calnevar bought standard stock shipping cartons accepted by the trade as "ideal." The standard carton was responsible for an extraordinarily high return to the company of goods damaged in shipping or handling. Until 1952 the company—like the rest of the industry—accepted the situation as an unavoidable evil.

At this time Detroit automobile manufacturers were planning to make a European-type sports car featuring wire wheels.

Investigation by Calnevar officials indicated that American manufacturers were in no position to produce the units, most companies having

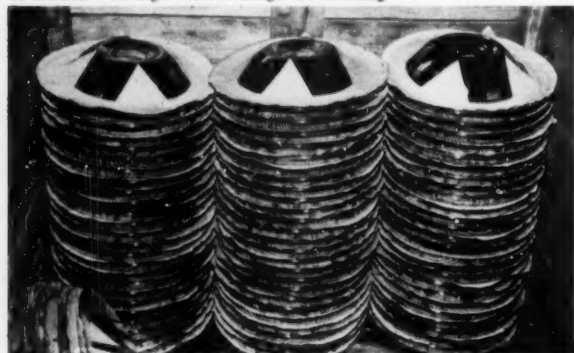
ceased production of wire wheels in the middle 1930s. The highly skilled labor needed to build the complicated, delicately adjusted wheels had dispersed and was lost forever. Only one company continued to maintain a small production set-up. European wheels, on the other hand, were available in some quantities, but their cost per individual set was prohibitive for a consumer item. The best Italian wheel sets are priced at \$700 retail, while the company producing the American product could sell them for no less than \$350.

Calnevar plans called for first making an expensively produced and accurately made simulation designed to sell for about \$100 and then later a cheaper version. Their decision to make the more expensive hub caps was influenced greatly by the price of real wire wheels and the uniqueness of the item. In its final form the hub cap incorporated open "see-through" construction calling for the use of real spokes.

About this time the designers realized that they had a knotty packaging problem on their hands, as the stainless-steel units in a package of four would weigh about 20 pounds. All work on design was stopped immediately and the abilities of the entire company—management, engineering, production and sales—were enlisted in the search for a solution.

Bernard Plotkin, vice president in charge of manufacturing, pointed out that the dubious packaging processes

SUNBURST SEPARATOR proved so successful in package that this modified form was adopted for production handling. With it, the hub caps can be stacked 6 ft. high without danger of abrading.



followed by most of the industry, including Calnevar, created a considerable problem for large merchandisers pinched for warehouse space and embroiled in time-consuming "return-merchandise" problems. He declared that if competing manufacturers produced a product of equal price and quality of design, the manufacturer with the best package would get the business.

Harold Sloier, design engineer, worked out every conceivable condition that would affect package design.

With nearly a score of seemingly insurmountable problems to face, company officials and engineers discarded the perplexing traditional assumptions about packaging, threw away the drafting boards, ordered razor blades and half a ton of corrugated board, and started hacking away at the problem in the literal meaning of the word.

They first listed all Calnevar's requirements for an ideal shipping carton. They were:

1. **Economy.** The carton had to be simply and easily manufactured and at the same time permit instant packing and sealing.

2. **Strength and rigidity.** Perfect protection had to be provided for the unusual merchandise to reduce returns from damage during shipping or handling. The merchandise had to be treated like glass.

3. **Warehousing.** With building cost at an all-time high, this problem was as critical then as it is today. The larger retail stores have been refusing merchandise because of improper packaging. Packages permitting high stacking are a "must" with these companies. This problem is also critical for individual dealers whose size generally does not permit the renting of additional storage space off the premises.

4. **Elimination of abrading.** The Calnevar company's widely acclaimed high finish on its products had been responsible in the past for a great percentage of returns. The continuous abrasive action from shipping often slightly marred the glittering surfaces, which amplified the injury out of all proportion to the imperfection. It was of paramount importance that this abrading be entirely eliminated.

After months of redesigning, experimenting and testing, Calnevar engineers integrated the package and product into an ideal logistical unit that far exceeded all expectations.



STACKED 12 HIGH, the new package has sufficient rigidity to prevent damage to contents. This means of providing maximum utilization of distributors' warehouse space was a prime objective of package design.

As evolved, the package is 16 by 16 by 12 in. and constructed of 200-lb.-test corrugated board. The usual center weakness of such boxes was overcome by the use of the principle of bridging, using the parts themselves, placed between sunburst inserts, to effect the principle. No paper, excelsior or wedging was needed. This "bridging" principle was aided by the design of the angle of the wire spokes.

The first hub cap is fitted with a stressed spacer and then placed in the bottom of the box and a sunburst section is placed on top of it. The bottom of the second hub cap is fitted with another stressed spacer and placed in the box followed by a second sunburst. Hub caps, sunbursts and spacers are alternated in this manner. The top sunburst insert is in the form of a tray with the outer edges bent up so that when it is in position the top of the tray edges are flush with the top of the box.

The hub of each wheel cover extends through the sunburst separators. The tips of the cardboard fingers which form the circumference of a hole in the center of the separators are raised by the angle of the wire spokes, firmly gripping and centering the unit. The outer edges of the

sunburst separators extend to the sides of the carton, insuring that at no time will the part touch the sides of the box.

The strength of the entire unit, consequently, becomes the sum total of the individual parts together with the box—thus permitting a *treinen*. (This article continued on page 182)

FINISHED CARTON shows detail of automatic stapling, which is identical on top and bottom. Stapling is felt to contribute both strength and saving of time.



Are you getting this sales lift?

IF PACKAGING problems have kept you out of the booming self-service field, here's something you must consider:

This modern selling requires specialized packaging—and here's your best answer.

The strength and versatility of transparent, moisture-resistant PLIOFILM have made it possible to put all sorts of hard-to-package products on self-service counters.

Bulky items like hunting jackets, white goods like sheets and towels, irregular-shaped objects like toys, even fragile lingerie, can now be PLIOFILM protected

for self-service selling.

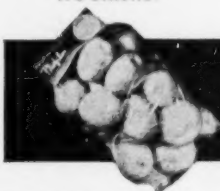
The reason is as clear as PLIOFILM. This rugged film is strong and tough. It eliminates soilage and spoilage, drastically reduces returns and rewraps. And its natural transparency permits display of the product in its true colors—helps sell on sight.

Why not consult the Goodyear Packaging Engineer? He will help you to design a PLIOFILM package specifically to suit your needs. Write him at:

Goodyear, Pliofilm Department H-6418,
Akron 16, Ohio

COULD YOU USE THESE PLIOFILM ADVANTAGES?

IT'S STRONG!



PLIOFILM produce bags hold up to 10 pounds without danger of breakage.

IT KEEPS LIQUID IN!

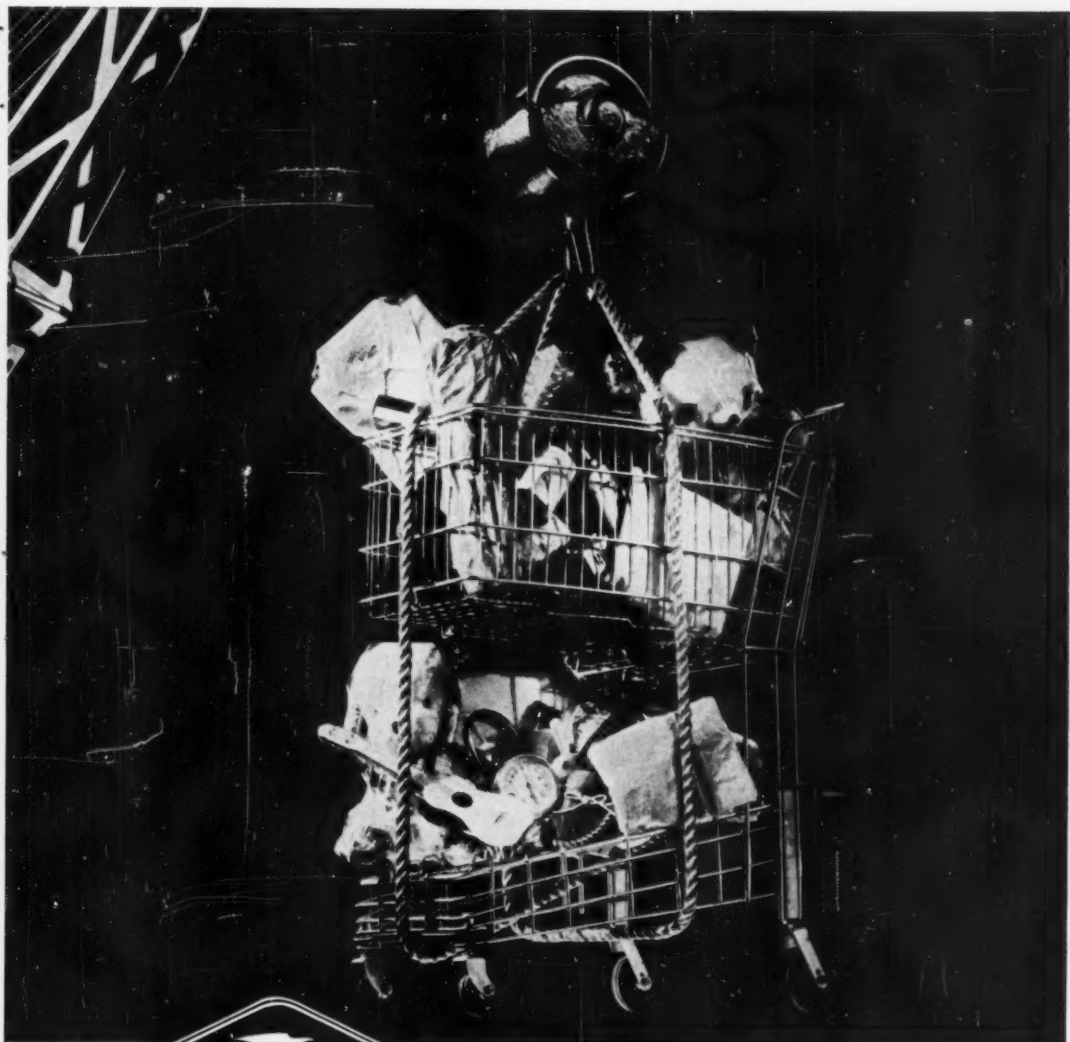


So moisture-resistant, it safely seals pickles, sauerkraut, in their own flavor-making brine.

IT KEEPS MOISTURE OUT!



Crackers, tablets and other hygroscopic products stay crisp and dry in PLIOFILM.



Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio



Good things are better in

Pliofilm

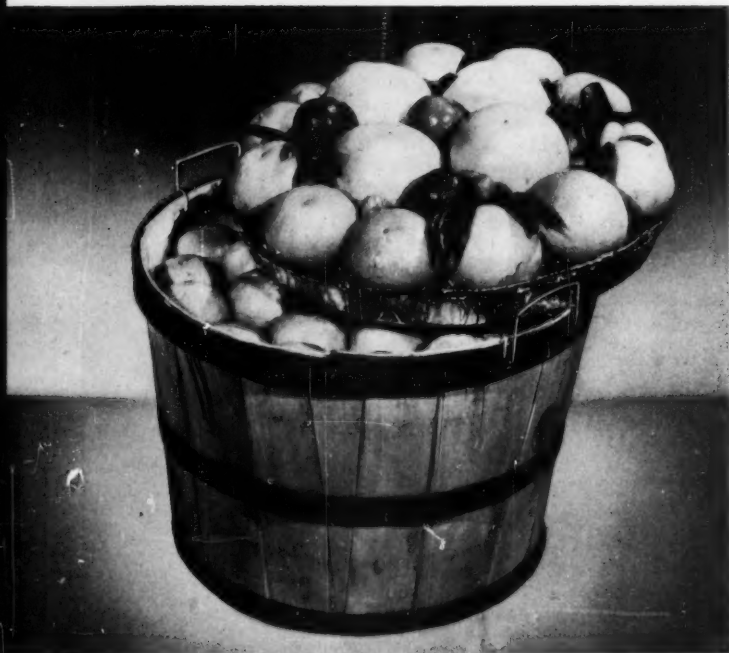
3-way protection against air, moisture, liquids

We think you'll like THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network

AUGUST 1953

111

Top-of-basket



LOW-COST EYE APPEAL is offered by this special arrangement of fruit concocted by Clifton Groves of Maitland, Fla. Ordinarily the trays contain oranges and/or grapefruit. The company says consumers prefer this pack and are willing to pay the additional cost for it.

Harvesting fruit from the orchards to the packing houses has traditionally been an operation drawing upon large amounts of hand labor. One operation in particular—arranging the most colorful fruit in a neat, symmetrical pattern on top of a bushel basket—has been draining packers of more labor time than they can afford.

"Facing," as it is called in the trade, is a standard way of dressing up each bushel basket to give it the best kind of sales appearance for the shopper. But the old method of doing it required loading baskets upside down, using a paper basket liner and a metal fixture for loading and turning the frail fruit upside down again after loading. Chief objections raised by packers: too much time, too much money, damaged fruit.

A different, better way of doing it has been found at Clifton Groves, cit-

rus packer at Maitland, Fla. The packer arranges the top layer on an 0.0045-in. aluminum foil tray. Foil is just heavy enough to give some rigidity to the tray, yet thin enough to be economical. For another thing, the soft foil tray conforms to the shape of the fruit and lessens the danger of bruising. The foil plates, available from several suppliers, are stamped from individual sections of foil, though they may soon be formed of foil from coils with a cutting device to separate each section of foil needed.

This foil tray, which serves as a platform, is simply placed on top of an unlined basket—already jumble-filled to a point several inches from the top. In closing the baskets, a pad and a lid are used, the main purpose of the former being to protect the contents of the baskets during shipment. The fruit packer uses the

half-bushel standard tray and the bushel size, flared-type tray at a cost of 14 and 37½ cents, respectively.

Contrasting the old method with the new gives a real appreciation of what the difference means to Clifton. The old formula had these rather complicated ingredients: place fruit in facing ring with fruit turned face down; place paper basket liner over ring facer containing top layer of fruit; place open-ended metal can (size of basket) over the liner; fill can with product from chute; remove metal can; place basket over paper liner filled with fruit; place the whole assembly on a turn-board and invert; place lid on basket.

All that rigamarole has been replaced in the Clifton plant with a far more streamlined system in which one man can pack up to 350 bushels per day, as against 200 the old way. Fruit isn't as exposed to damage as it was with the turn-board method; the old ring facer is made obsolete by the new method and the foil tray, which performs that function, is shipped with the fruit.

Paper liners, costing 3 cents each, the packing can and turn-board are eliminated. For products which require it, cooling can be done quickly as the basket is not sealed by the liner and the better ventilation of fruit results in less spoilage.

Gone too, much to the packer's relief, is the blind or face-down method of ring-facing apples. Doing it backwards, so to speak, the packer couldn't bank on the final appearance of the display. Now the packing-house worker can see how the display is shaping up as she assembles it. Another advantage on the cost-saving side of the ledger: it naturally takes less time to train new production workers.

For international inspection or for examination by wholesale buyers, baskets packed by the new method are much easier to inspect and repack. The display tray need only be lifted out intact and the bulk contents readily examined—then the tray put back in place. Under the previous system the display face was upset after inspection and had to be refaced.

The patented tray, with all its practical benefits for the packer, has great

display

Simple aluminum foil tray for top layer is giving

citrus and apple growers more attractive packs at lower cost

homemaker appeal to boot. For busy housewives, always scouting for new and different table centerpieces, these top-of-the-basket trays are ready made. They can simply be lifted off the basket and transferred to the table. When the fruit is gone flowers can always be substituted.

The very simplicity of the tray idea guarantees adoption by many packers. Other citrus growers, as well as apple packers in Pennsylvania, are now using it. Any one of them can easily apply it, since very few changes in packing-house procedure are required. Those who have adopted the trays save the greatest amount of time in the packing operation by filling the jumble part of the basket directly from chutes. The upshot of the new tray method has been a greater unit-package profit for Clifton Groves and the other packers who were quick to recognize an improved packing method.

CREDITS: "Stulane" trays stamped from Alcoa aluminum by Oakes Aluminum Products Co., Warren, Ohio, under license from Stulane Corp., Warren, Ohio.



A COLORFUL centerpiece for the table is ready made when shoppers buy baskets of fruit with aluminum tray inserts. Clifton Groves also suggest filling empty trays with flowers.



JUMBLE PACKING of oranges and grapefruit saves time over previous method. Aluminum tray with fruit neatly arranged is slipped into top of basket as final step in packaging operation.



Two corks say 'stuffy nose'

An intriguing counter display is this "stuffy nose" carton for Ciba Pharmaceutical Products' Privine Nebulizer. Face design on the die-cut, fold-back cover of the carton is that of a man obviously suffering from a stopped-up nose. In his nostrils are two corks to point up the "stuffy nose" idea. The corks are especially made. Instead of the usual tapered shape, they are cylindrical with a small depressed ring in the center to hold them in place. In order that the display might arrive at its destination without the corks coming out, a special sleeve packer box with die-cut corrugated fillers was designed. While this added to costs, Ciba believed that the impact of the display on drugstore counters justified the expense. Ciba's Advertising & Methods and Package Development divisions deviated from family color and artwork for the individual cartons—now aqua and red—to achieve an eye-catching unit that druggists would place on their counters. Colors of the display carton are yellow, black, red and white, contrasting effectively with individual cartons.

CREDIT: Display and individual cartons, The Wilkata Folding Box Co., Kearny, N. J.

DISPLAY

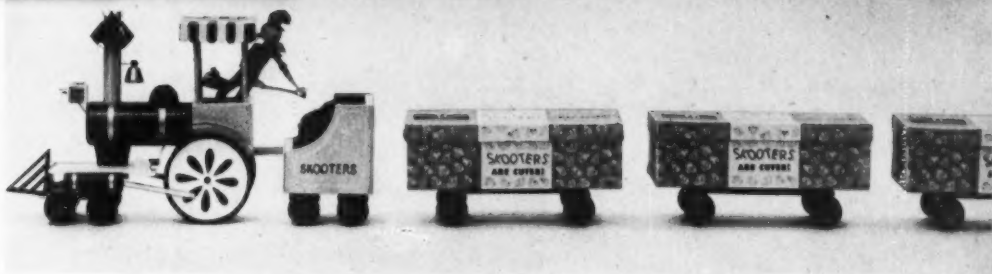
Novelty appeals to win the young market



Helene Pessl, Inc., credits a large share of spiraling sales of "Little Lady" Deb Toiletries—designed for the 10 to 14 age group—to the effectiveness of eye-catching counter displays, two of which are illustrated at the left. One of them is a miniature dressing table, complete with a dainty cloth ruffle, not a lithographed paperboard replica. To the right of the actual bottle of toilet water resting on the unit is a plastic daisy that is a bottle-top decoration with a concealed supply of solidified perfume. The entire unit measures only 10 by 10 in.

The Little Lady unit illustrated at the far left is a 12-in.-high dimensional lithographed paperboard display. The little girl's frock is blue; apron and panties are in matching pink with scalloped edges. Resting on the base is an actual bottle of toilet water, together with a card pointing out that "Good grooming can be fun with Little Lady Toiletries."

CREDIT: Displays, Einson-Freeman Co., Inc., Long Island City, N. Y.



Trans-continental express for shoe boxes

This Skooter Express is having long "runs" in promoting Vogue Shoe Co.'s Hollywood Skooter shoes. The Skooter Train has long been used as a promotional theme in the company's advertisements and has thus won wide recognition value in association with the product. By the clever display device of a model wood and brass locomotive, coal car and series of tiny gondola cars, each large enough to hold just one of the shoe boxes, the company brings the Skooter Train in third dimension right to the point of sale. The whimsical appeal of the miniature train and its "box" cars is an immediate attention getter, identifying a

brand name which has been pre-sold in the advertising and using the actual trademarked boxes as the recognition symbol. The display models of the Skooter Train may be set up either as shelf, counter or window displays by simply arranging the locomotive and cars and putting the shoe boxes on top of them. The display is simple for the retailer to set up. The idea is an interesting example of how the package can be used as an integral part of a display unit, when ingenuity is used in developing the theme.

CREDIT: Display, Charles Tucker Displays, Los Angeles, Calif.

GALLERY

Beer with a head that appears to flow endlessly

Beer, complete with suds, seems to flow endlessly from the bottle into a pilsner glass in this new motor-operated point-of-sale display, first used successfully to promote the San Francisco Brewing Corp.'s Burgermeister Beer in California. Dealers are supplied with a kit containing the materials to provide the foaming head on the beer and the amber liquid when added to water in containers in back of the unit. When the motor is plugged in, the foam and liquid circulate in an endless flow through an entrance and an exit in back of the bottle and the glass connecting with the reservoir of liquid.

The frame of the display is durably constructed of metal. It has a transparent front window of cellulose acetate sheeting. The brown bottle and clear glass are molded from cellulose acetate butyrate.

CREDITS: Display sign, Liquid Flow Co., San Mateo, Calif. Molded bottle and glass, Precision Mfg. Co., San Francisco. Tentite plastic, Eastman Chemical Products, Inc., Kingsport, Tenn.





A MOUTH-WATERING vignette in four colors and new system of color coding with fifth color for immediate identification of fish variety are among features of the new waxed paper overwrap for 1-lb. packages of fillets adopted by Fishery Products, Inc.

Fish with a flourish

Blue Water brand is packaged not only for appetite appeal, but in portions for five different kinds of users

Stripped of its packaging, there are few products less appealing in appearance than a frozen fish fillet. An outstanding example of how imaginative packaging can contribute strong merchandising appeal as well as unmistakable company and product identity to this popular type of food item is found in the current line of packages developed by Fishery Products, Inc., Cleveland, Ohio.

This company, one of the nation's largest producers and marketers of frosted fish for both the consumer and institutional trade, is just introducing several important new additions to its broad packaging line, under the company's long-established Blue Water brand.

Now headed by R. J. Gruber, president, the company dates back

three generations and maintains a chain of modern fish freezing and packing plants in Newfoundland. Eight modern Diesel trawlers in its fishing fleet account for the production of haddock, perch and flatfish, while codfish are supplied almost entirely by the hundreds of small boats fishing the shore waters adjacent to its freezer plants. Two modern refrigerated freighters which maintain closely controlled sub-zero temperatures deliver the product to principal ports of entry at Providence, R. I., Buffalo, Cleveland and Detroit.

Five distinct lines of packages that sharpen eye appeal and consumer convenience are included under the Blue Water brand, some of which are completely new. They embrace a redesigned 1-lb. Consumer-Pak family

of products, color coded to induce the housewife to try more varieties; a new Freezer-Pak line of 5-lb. packages, specially designed for large home-freezer storage cabinets; the Regular-Pak, a 5-lb. cellophane-wrapped package for the institutional and bulk retail trade; the Custom-Pak 10-lb. cartons of graded fillets to provide greater uniformity for institutional use, with many unique features.

Since the Blue Water line is well balanced between product packed for the institutional trade and product for the retail trade, the company believes it now has the most complete line of fish packages available to the wholesale distributor.



SALES IMPACT of new package is illustrated by close-up of 1-lb. package. Reverse surface of overwrap, which covers a one-piece carton, carries promotional copy and suggestions for serving.

Although effective design plays an important part in the company's new packaging program, such factors as user convenience also came in for attention. The company created an entire new group of packages—the Freezer-Pak line—especially for those consumers who have adequate frosted-food storage facilities for a larger package of fish fillets.

Highlight of the new Blue Water packages is the 1-lb. Consumer-Pak, consisting of a printed waxed-paper overwrap used in conjunction with a one-piece folding carton. Although completely new in treatment and marking the company's first use of waxed paper for this purpose, the design carries with it the basic family resemblance and other features which had already developed excellent consumer acceptance.

The new wrappers incorporate, for the first time, color variety and color identification, facilitating consumer selection. Each of the seven kinds of fillets now has its own identifying pastel color on the fish symbol.

The new color angle, in addition to its display features, serves as an incentive to the housewife to try the different varieties of fish fillets.

These new packages made their debut several weeks ago at the National Fisheries Institute convention in Washington, D. C. Used in conjunction with them is a new 48-lb. master package printed in red and blue, featuring the Blue Water oval logotype on the side panels. Each master case includes four inner printed corrugated cases, each containing a dozen of the 1-lb. packages.

The new waxed-paper overwraps are printed in rotogravure, using four-color process, with a fifth and sixth color added for the code identification and copy. Their most arresting feature, carried over from the previous cellophane labels, is a color vignette of a large platter of fish fillets ready for the table, cooked to a delicious, appetizing golden brown and

garnished with celery and lemon slices. This illustration is supplemented by the logotype, a dark blue oval bordered in deep red and carrying the trade name in reverse-white letters. A feature of the logo is a white horizontal strip with scalloped edges that clearly suggest waves. The phrase, "Quick-Frozen—product of Canada," is printed across this strip.

The entire background of the new Consumer-Pak overwraps consists of a subtle over-all diamond design printed in light yellow, a feature carried over from the previous wrappers. Instructions for storage and preparation of the product, along with favorite basic recipes, are printed on the bottom display panel of the overwrap.

An accompanying photograph shows the progressive improvement of the 1-lb. Blue Water Consumer-Pak for cod to its present stage of refinement. A corresponding design change has also taken place in other labels in this group.

The earliest of the 1-lb. consumer packages was a printed two-color carton which was used from 1945 until 1948. This cellophane-wrapped, one-piece carton was printed in red and two shades of blue, with the name

EVOLUTION of 1-lb. package shows progressive improvement in merchandising appeal. Original package promoted geographic origin of fish. The 1948 package had a transparent window showing product with printed paper label under cellophane. Appetite appeal was introduced in 1949. Center portion of carton was still die cut to show product. Present package shows use of waxed paper wrap and color coding of fish motif to distinguish varieties.





5-LB. PACKS are planned for users who have large home freezers. Design follows closely that of the 1-lb. consumer packages. Each Freezer-Pak contains six cellophane-wrapped meal portion of three servings each.



INSTITUTIONAL PACKS of 5-lb. and 10-lb. quantities feature an oval trademark. The 10-lb. pack has direct printing on the carton; the 5-lb. pack has a two-way paper label with a clear cellophane overwrap. The reverse side of the label presents copy and recipes.



MASTER CARTON of corrugated, holding four cases (four dozen) of the 1-lb. consumer packages, utilizes blue logotype with a red border, giving effective trade identification.

of the variety in reverse white against a rectangular red background in the upper right corner of the package. An outline map of Newfoundland, indicating the origin of the product, gave pictorial interest to this carton. The four side panels bore the phrase, "Blue Water Bore Frozen Sea Foods," supplemented by a warning on the front and back panels to keep the product frozen and not to re-freeze it.

Printed paper labels, used in conjunction with transparent cellophane overwraps, made their appearance on the second package in this series, used from 1948 to 1951. It was on this package that the distinctive red, white and blue oval Blue Water trademark was first used. The center portion of the label and the top of the carton were die cut in a cloud-shaped opening through which the actual frozen product could be seen. This package was used for specialties.

Package No. 3 in the series, also used in the period between 1948 and 1951, was used for standard fillet items. It marked the company's initial use of a printed cellophane label with appetite-appeal color vignette in combination with a symbolic fish outline as a background for the variety name. The portion of the design comprising the body of the fish was left transparent so that the product could be seen through a die-cut opening in the top of the package.

The fourth consumer package, used from 1951 until the recent adoption of the new waxed-paper overwrap, was essentially similar to its predecessor except that the visible window was opaqued and the product-variety printing greatly enlarged for easier consumer recognition and selection. With the switchover from cellophane to waxed paper, made primarily in the interest of reduced cost in a case where the product visibility was not essential, came the introduction of color coding on the fish symbol.

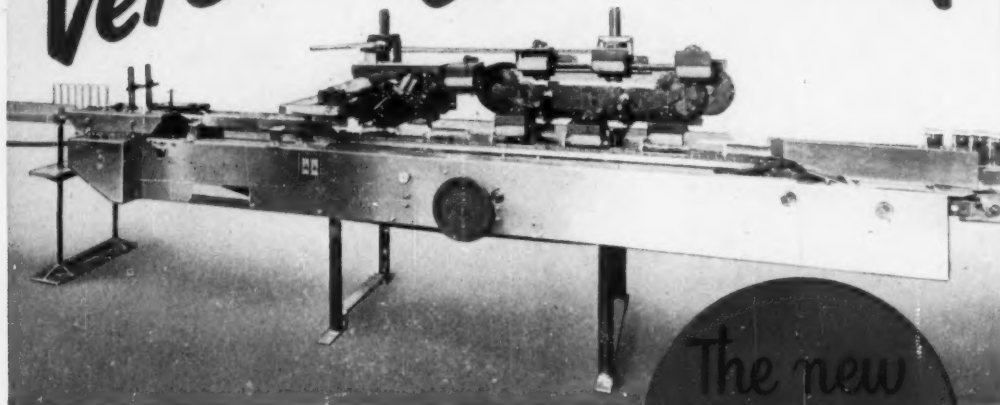
The Freezer-Pak line of 5-lb. cartons initially includes three varieties of fillets—haddock, cod and perch. The basic design and color treatment follow those of the 1-lb. consumer cartons, with special emphasis on the advantages of the package for freezer storage. Mr. Gruber points out that in recent years the emphasis given to home-delivery "food plans" has tended to divert the consumer from the usual retailer-distributor (This article continued on page 189)

A Prestige Product Packaged by **BURT**



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The new Thrifty Labeler will enable you to label an entire line of products — at a speed of up to 120 containers a minute.

The many advantages it offers and its low initial cost appeal to manufacturers labeling by hand as well as to those who now have automatic labelers.

Handles a gallon jug or a 4-ounce bottle — and can be set for a given size in a few minutes. Can be fed by hand or hooked up with existing filling and capping lines.

Containers entering the machine may be hot or cold, wet or dry, without affecting the sealing. That's because a unique device applies *flexible pressure* to labels before containers are discharged.

Thermoplastic or hot melt adhesive may be used. Labels may be rectangular, round or fancy cut. Gummed and embossed labels may also be used.

CONTINUOUS MOTION
40 to 120 per minute.

STRAIGHT LINE

QUICKLY ADJUSTABLE
with few change parts.

WIDE RANGE

Gallon jug or four-ounce container
— hot, cold, wet or dry.

PRESSURE SEALING

Adhesive is applied over entire surface of label and rubber rollers press it firmly on container, making a strong seal. Prevents wrinkling of label due to future expansion or contraction of container.

ACCURATE LABEL REGISTRATION
on smooth or recessed surfaces, regular or unusual shapes.

LOW COST

Low initial cost, low maintenance, high operating efficiency.

THRIFTILY PRICED

Write for full particulars

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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr., • Technical Editor

Cold brittleness of polyethylene

General Mills' work on films for high-altitude balloons gives clues to sub-zero failures. By M. M. RENFREW and A. J. FREEMAN*

The critical requirements of plastic films for use in high-altitude balloons should hold more than casual interest for packaging engineers. Such balloons must successfully survive strong flexing at temperatures around minus 75 deg. C. while carrying a heavy load of cosmic-ray detectors into the stratosphere. Rapid ascension into the stratosphere provides a more strenuous environment than packaging materials meet in normal service. However, the behavior of barrier materials at low temperatures is becoming increasingly important to the packaging field. It appears that physical methods employed in rating the suitability of films for balloon service may have potential value in a packaging laboratory. Hence, we are now describing a test which has proved exceptionally useful here in predicting the field performance of balloon materials.

The story of high-altitude balloons has been told more frequently in popular magazines than in technical journals. Twenty years ago manned flights into the higher atmosphere widely stirred the public imagination. A series of articles issued by the National Geographic Society (1)[†] which

described the record flight of the Explorer II to 72,395 ft. did an effective job of combining human interest with a report on the technological problems encountered. With this flight, balloons appeared to have reached a practical limit in performance. To go higher with an equivalent payload they would have to

grow by several million cubic feet. If made of the conventional rubberized cloth, they would then be so heavy that they could hardly support even their own weight in the thin air of the upper atmosphere.

After World War II, however, there was a quickening of scientific interest in the top of the world (2). Ad-

1. POLYETHYLENE balloon being prepared for its trip to upper atmosphere with cosmic-ray instruments. Finding out what caused some of these balloons to fail under flexing strains at minus 75 deg. F. led General Mills to develop a new low-temperature test method for polyethylene.



* The authors are associated with the General Mills Research Laboratories, Minneapolis. This paper, No. 154, describes work which was carried out in the Engineering Research and Development Laboratory of the General Mills Mechanical Division, which is responsible for the development and manufacture of high altitude, constant-volume balloons. The work in part was supported by contract with the Office of Naval Research and by the Wright Air Development Center.

† Numbers in parenthesis identify References appended.



2 and 3. CHARACTERISTIC TEARS in a polyethylene film at low temperatures. The fracture illustrated in Fig. 2 occurred at minus 67 deg. C. and would be considered non-brittle, while that in Fig. 3 at minus 69 deg. C. would be considered a brittle break. The films were identical in composition.

vances in atomic energy increased the importance of cosmic-ray research at high altitudes. Also, the designers of high-flying jet planes and rockets needed more data on conditions in the upper atmosphere. It was evident that balloons could provide a stable platform for sustained observations. It appeared that the new plastic films provided better materials for balloon construction than had earlier been available. Under contract with the Office of Naval Research, General Mills developed balloons of greatly improved performance.

In the early work, materials were screened qualitatively on the basis of available data to select candidates with the best potentialities for overcoming the recognized obstacles to successful flight. Materials which were highly susceptible to degradation by ultraviolet light, which deteriorated rapidly on attack by ozone

or molecular oxygen, or which stiffened excessively and lost toughness at low temperatures obviously were poor prospects. The search soon led to polyethylene films, which combined low density and relative ease of fabrication with many other virtues.

Large, constant-volume balloons with diameters around 100 ft. when fully inflated were evolved over a period of time. It was found that such balloons could carry satisfying loads of recording instruments to the 100,000-ft. level and maintain the observation point for some hours. But the performance was highly erratic. At about 40,000 ft. many of the partially inflated balloons which were rising majestically at 1,000 ft. per min. would suddenly shatter. Sometimes the parachute carrying the load of expensive equipment would be fouled by the disintegrating balloon, with

TABLE II—A SERIES OF COLD BRITTLENESS TEMPERATURE DETERMINATIONS ON A SINGLE LOT OF POLYETHYLENE FILM

Sample number	Cold brittleness temperature (°C.)*
1	-66
2	-66
3	-66
4	-66
5	-66
6	-65
7	-66
8	-65
9	-66
10	-66

* An average of about seven breaks were made to obtain each value stated in the table. A spread of 5° C. was the maximum observed in any set and the preponderance of tests varied only $\pm 1^\circ$ C.

resultant total loss of the instruments. It was known that the balloon at 40,000 ft. was in the zone of minimum atmospheric temperature (minus 65 to minus 75 deg. C.) for the temperate latitudes. However, it was not readily apparent why some balloons carried through successfully while others failed. It was suspected that differences in polyethylene film were responsible for the dramatic variation in performance and that measurements of differences in toughness at low temperature would afford a significant forecast of performance.

In contacts with manufacturers of polyethylene and with film extruders it was learned that there was no accepted method for determining the toughness of plastic films at low temperatures. The ASTM method (D746-52) for measuring the cold brittleness temperature of plastics was considered inappropriate, since this required a molded specimen 0.075 in. thick. Such pieces could be remolded from the thin films (0.001-0.003 in. thick), but it was evident that the physical properties of the remolded specimen would differ substantially from the properties of the original film. Moreover, the method also was defective for our purpose in that it measured an "average brittleness temperature" for a series of test pieces rather than establishing the temperature level to which the plastic film might be dropped without embrittlement.

Industry had made good use of one test in rating the toughness of films which involved dropping a heavy ball through a piece of taut film. Generally, the length of drop re-

TABLE I—TYPE OF FILM BREAK AT DIFFERENT TEMPERATURES LISTED IN THE ORDER OF TESTING

Polyethylene film A (1.5 mils thick) (Cold brittleness temp. = -61° C.)		Polyethylene film B (3.0 mils thick) (Cold brittleness temp. = -50° C.)	
Box temp. (°C.)	Type of break*	Box temp. (°C.)	Type of break
-63	+	-54	+
-61	+	-52	+
-59	-	-50	+
-60	±	-48	-
-61	+	-49	-
-61	+	-50	+
-60	-	-50	+
-59	-	-49	-

* + indicates a shatter (see Fig. 3).

- indicates straight-line tear (see Fig. 2).

± indicates a three-way break not considered a shatter.

quired to rupture the film was measured. In refinements of the method, the ball was dropped from a sufficient height to guarantee penetration and the energy absorption in rupturing the film was obtained by measurements of the ball velocity before and after impact. Alternatively, the film was penetrated by a ball traveling horizontally and the film toughnesses could be compared by noting the relative distances traversed by the ball after impact. These tests could be carried out at low temperatures and in fact were used to advantage in our work. However, it was soon found that a simpler version of the test gave the most meaningful correlation with flight performance of balloons made from polyethylene films.

Method

In this new cold brittleness test, a piece of the sample plastic film is held taut in a clamp similar to an embroidery hoop and is pierced with a dropping steel ball. The entire apparatus is held in a cold box in which the temperature can be varied in carefully controlled fashion. The temperature at which the tear caused

TABLE V—COLD BRITTLENESS TEMPERATURES OF MISCELLANEOUS PLASTIC FILMS

Film	Thickness (in.)	Cold brittleness temp. (°C.)
Vinylchloride copolymer (plasticized)	0.002	0-15
Polychlorotrifluoroethylene (unplasticized)	0.002	+30
Polychlorotrifluoroethylene (plasticized)	0.002	-71
Polyethylene terephthalate (two-way oriented)	0.0005	-73 to -75
Polytetrafluoroethylene	0.001	below -74
Polytetrafluoroethylene	0.002	below -74

by the ball piercing the film changes from the straight-lined, stretching tear characteristic of a tough, distensible material to the random shattering typical of a brittle material is called "the cold brittleness temperature." (See Figs. 2 and 3.)

This very marked change in type of break occurs over a 1 to 2 deg. temperature range (see Table I) and the brittleness temperature thus determined is quite reproducible (see Table II). Within wide limits the kinetic energy, velocity and size of the piercing ball do not seem to af-

fect the test results. Also, the thickness of the film is not a factor in the range of 0.001 to 0.005 inch.

Variations in the tautness of the film disturb the measurements of cold brittleness temperature only slightly, in most cases by only 1 or 2 deg. C. (see Table III).

Among the variables which affect reproducibility, surface scratches on the film seem to present the greatest source of error. Scratches and stress cracks almost invisible to the naked eye have been found to cause film

TABLE III—EFFECT OF FILM TAUTNESS ON THE COLD BRITTLENESS TEMPERATURE*

Box temperature °C.	Film very taut (Stressed)	Type of break Film taut (Not stressed)	Film loose
-66	+	+	+
-66	+	+	+
-66	+	+	+
-65	+	—	—
-65	+	—	—
-64	—	—	—
Determined cold brittleness temp.	-65° C.	-66° C.	-66° C.

* The taut samples seem to break at a slightly higher temperature, but within the limits of the test accuracy. A clamping ring with a shoulder was used to draw the film taut during clamping, while a flat clamping ring was used where no tautness was desired.

TABLE IV—COMPARISON OF COLD BRITTLENESS TEMPERATURES OF POLYETHYLENE FILMS

Polyethylene manufacturer's grades	Melt index* value	Film thickness (in.)	Cold brittleness temperature (°C.)
A	0.41	0.002	-72
B	0.83	0.0015	-70
	0.98	0.001	-66
C	1.37	0.001	-67
	2.17	0.0015	-60
D	2.21	0.0015	-52
E	2.93	0.0015	-62

* Method For Measuring Flow Rates of Thermoplastics by Extrusion Plastometer, ASTM Tentative Method, D 1238-52 T. This test affords a measure of the molecular weight of polyethylene. Polymers of the highest molecular weight have the lowest melt index values.

4. INSTRUMENT which is used by General Mills to determine the cold brittleness characteristics of plastic films. A 2-in. steel ball is released down the runway to strike the film specimen.



Testing film bags for leaks

Controlled air pressure in bag under immersion locates and evaluates weaknesses.

By K. H. HU and A. I. NELSON*

An ever-increasing quantity of foods is being packaged in plastic-film containers. Many food products deteriorate rapidly if water-vapor or oxygen transmission is allowed to take place freely through the package seal or through the film. Some plastics allow very little water vapor or oxygen transmission through the film, but due to variability of the sealing process free passage of these materials may occur through the seal. Therefore, a method which is both accurate and simple in nature is needed for testing the effectiveness of the sealing operation.

Rabak and Stark (3,4)[†] have developed a starch-iodide method for demonstrating porosity of the heat-seal area of waxed paper. Essentially the method consists of passing a heat-seal waxed wrap through a 1.0% aqueous iodine solution. After washing with water to remove surface iodine from the non-porous area, the wrap is then dipped in a 1.0% starch solution. A deposition of blue-black starch iodide is an indication of porosity in the heat-sealed area.

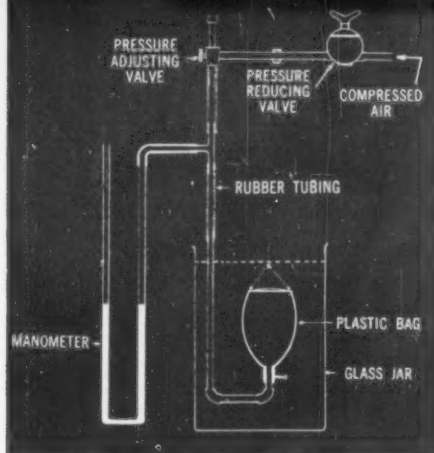
Hartwig (1) has also developed a method for locating points of gas leakage in flexible packages. He used the test sheet or package to construct a cell into which he introduced hydrogen sulfide gas under slight pressure. When the outside of the cell was brushed or sprayed with stannous chloride, the points of gas

leakage could be located by brown stains resulting from the reaction of these two reagents.

A quantitative method for measurement of tear resistance of the heat-sealed area has been proposed by the Packaging Institute (2). Schriker (5) used this method for testing the sealing strength of thermoplastic material sealed with an impulse sealer. This method consists of attaching one free end of the sealed specimen in a clamp. An arm attached to the clamp is pulled through a uniform down-

ward movement with an electric motor. The other free end of the specimen is held in another clamp that is attached to a pendulum device which records the weight in grams necessary to break the seal.

Many heat-sealed areas of plastic containers appear to be nonporous under atmospheric pressure, but exhibit leakage when subjected to a slight pressure. The method herewith described is designed to determine the leaks both qualitatively and quantitatively in the seal areas. Leaks



1. DIAGRAMATIC representation of apparatus set-up for testing water-vapor and oxygen leaks in packages made from plastic films and tubings.

TABLE I—PLASTIC BAGS UNDER THE AIR PRESSURE TEST FOR LEAKS

Sample No.	Material	Sealing condition	Air pressure starts leaks, inches of water, mean	Standard deviation	No. of bags tested	Place where leaks occurred
A	Visqueen (0.002 in.)	220°F*, dwell time ½ sec., pressure 12 lbs.	10.1	4.2	12	Heat-sealing area
B	Visqueen (0.002 in.)	250°F*, dwell time ½ sec., pressure 12 lbs.	57.7	2.2	13	Film broken
C	Visqueen (0.002 in.)	280°F*, dwell time ½ sec., pressure 12 lbs.	56.1	4.7	11	Film broken
D	Saran (0.002 in.)	70 volts, dwell time 1½ sec.	203.5	12.3	10	Heat-sealing area
E	Saran (0.002 in.)	75 volts, dwell time 1½ sec.	192.3	7.0	10	Heat-sealing area
F	Saran (0.002 in.)	80 volts, dwell time 1½ sec.	196.2	8.8	10	Heat-sealing area
G	Cellophane (0.001 in.)	Unknown	3.5	0.3	11	Heat-sealing area
H	Polyethylene (0.0015 in.)	Unknown	7.9	1.2	20	Heat-sealing area
I	Polyethylene (0.0015 in.)	Unknown	5.7	3.3	2	Pinhole in the film
			19.8	5.1	6	Heat-sealing area
			27.8	1.9	9	Film broken

* Temperatures of the sealing bar used in making the seal.

* Both authors are with the Department of Food Technology, University of Illinois, Urbana, Ill.

† Numbers in parentheses identify References appended.

are best determined by placing the bag or tubing under water with known air pressure inside. The emergence of air bubbles from the bag or tubing in the water is a demonstration of porosity and the pressure under which the leak starts can be accurately measured. Principally, this method has long been used in canning technology for testing can seams for leaks.

Method

Compressed air is passed through a Johnson Service Co. pressure reducing valve into a second pressure adjusting valve. The second valve is a Linde oxygen therapy flow meter, type L-14, which is generally used for fine control of gas flow. Connected to the Linde valve is a T-tube which is attached to a manometer and a 3/4-in. pipe U-turn. (Figs 1 and 2.) A Pyrex cylindrical jar of 7-gal. capacity is filled with water and the plastic bag or tubing is fastened to the U-turn and immersed in the jar for testing. The tip of the U-turn end is inserted into a section of rubber tubing about 1 1/2 in. long. The rubber acts as a cushion and aids in sealing the open end of the plastic bag or tubing to the U-turn end. The fastening of the open end of a bag or tubing to the tip of the U-turn end is accomplished by hand twisting of copper wire and with a Bates loop end wire twister. The Bates twister is a semi-automatic wire sealer that is often used on grain or feed sacks. When plastic tubing is being tested, the opposite end is fastened to a rubber stopper in the same manner as that described for the fastening of the U-turn tip.

A 7-in. piece of rubber tubing connects the T-tube and the U-turn pipe. This flexible connection enables the U-turn end of the pipe to be raised or lowered into the water to facilitate changing of the bag or tubing. When a large bag is being tested, it may tend to raise the U-turn tip due to the buoyancy created by the air inside the bag. To compensate for this effect, a weight is placed on the U-turn.

The manometer may be filled with water, glycerine or mercury as necessary to obtain the desired range. In operation, the plastic bag or tubing is held under water while the Linde valve is opened very slowly. It is a good practice to pause a few seconds after each slight opening of the valve

TABLE II—RELATION OF DEPTH OF WATER AT WHICH LEAKS OCCURRED TO THE MANOMETER READING

Manometer reading, inches of water, range	Depth of water in inches at which leaks occurred, range	Differential pressure, inches of water, mean	Standard deviation	No. of bags tested
9.3-10.1	6.3- 6.5	3.5	0.3	11
13.0-14.3	9.8-10.5	3.6	0.3	8

until the pressure inside the bag and the pressure in the manometer are at equilibrium. The manometer reading is noted after each pause. The air pressure is increased slowly until a stream of small air bubbles appears at the point or area of seal or film failure. The last manometer reading noted is then taken and the depth of water at which the leak occurs is also recorded.

The calculations utilized in evaluating the container are very simple. The manometer reading in inches of water minus the depth of water in inches of water at which the leak occurs is the pressure in inches of water causing the plastic bag or tubing to leak. The point of leakage is assumed as the weakest point in the bag or tubing under pressure.

Results and discussion

Visqueen polyethylene bags were sealed at three different temperatures (Table I—Samples A, B, C) and saran bags were sealed with an electronic sealer at three different voltages (Table I—Samples D, E, F) for testing. The above samples were supplied and sealed by The Visking Corp., Chicago, at conditions requested by the authors. Cellophane and polyethylene bags (Table I—Samples G, H, I) were purchased on the local market. These bags are sold for the packaging of frozen foods for home freezing and locker-plant storage.

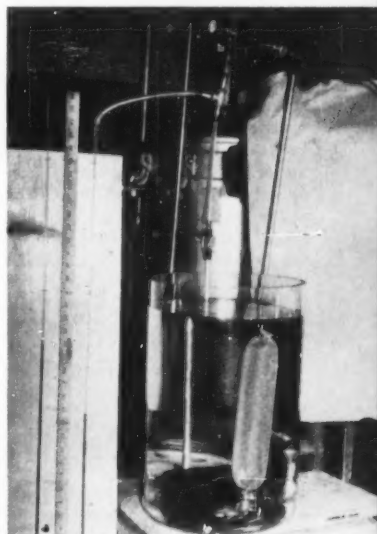
The Visqueen polyethylene bags which were sealed at 220 deg. F. started to leak at the heat-sealing area when subjected to a pressure of 10.1 in. of water, while the seals formed at 250 and 280 deg. F. were so superior that the film tore apart before the heat-sealing area showed any leaks. The saran bags which were sealed at three different voltages all showed leaks at the heat-sealing area at much higher pressures than those used with Visqueen polyethylene bags. A statistical analysis of variance was carried out on the data representing the test value for the saran bags. No significant difference was

found among samples sealed with the three voltages and only normal variation in strength of the sealing area was found.

Samples H and I (Table I) were purchased locally about two weeks apart. They were of the same brand and of similar material and size. It appears that the heat sealing of Sample H was poor and the heat sealing of Sample I lacked uniformity.

During the test, the air pressure which produces the leaks can be measured and the area from which the air bubbles evolved can be observed. For example, in Sample G the cellophane bags invariably showed that the location of the first leak was at the two edges of the heat-sealing area. Also, in Sample H the leakage of the polyethylene bags occurred at the area where the two sides were folded during the heat sealing.

To study the effect of hydrostatic pressures on the bag and the point at which the leak occurs, cellophane bags of the lot labeled G in Table I (This article continued on page 177)



2. PHOTOGRAPHIC view of apparatus.

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Coating of metal cans

QUESTION: *In an effort to reduce costs and save tin we would like to use a synthetic resin coating on the outside of some of our metal cans. We have seen Army ration cans that have been coated and we think this process could be used for our products. Can we expect as good shelf life and lower costs from coating cans as we are getting from our present paper-labeled cans?*

ANSWER: There is a great deal of research and development work going on to find coatings for both the inside and outside of metal cans. The ultimate goal of the research is to find coatings which would eliminate the use of tin for both the interior and exterior surfaces. However, such coatings have not been found as yet except for products which are not corrosive and do not undergo processing.

There are, however, many coatings in use that allow a lower weight of tin to be used on the steel. The Army ration cans that you have seen use an exterior pigmented coating for two purposes: first, to provide additional surface protection over the tinplate against atmospheric corrosion during long storage and, second, to provide a non-reflective surface so that the cans cannot be readily seen if they are stacked or used in the field. It is doubtful if you will achieve any saving in cost by attempting to reduce weight of tin. If you wish a more durable and attractive package, it is suggested that you go to a lithographed can, since this will give you protection against corrosion and also eliminate the danger of loss of a paper label.

Multicolor printing of films

QUESTION: *We would like to use several types of multicolor printed plastic films for packages which will be given rough handling. We have*

obtained samples and prices from several converters and are surprised at the differences in the quality of printing, adhesion of the ink and in the prices. Polyethylene film appears best for our purpose, but these printed samples showed the largest variations in quality and price. What is the present situation in regard to the printing of this film?

ANSWER: All plastic films require special inks and press set-up and printing techniques for good quality multicolor work at competitive prices. Many of the converters have the equipment and experience necessary to turn out quality work with good efficiency. However, you should be sure that the samples you have received are of the same quality of printing and on the same specific type of film before you compare prices.

For example, it is much easier to print on rigid-type films such as acetate, some of the vinyls and Pliofilm than it is on soft, distensible film such as polyethylene and the highly plasticized vinyls. The softer films in thinner gauges can create problems in distortion when they are pulled through multicolor presses.

It is also suggested that you simplify your multicolor design as much as possible to avoid close-register problems, which are always more difficult with flexible films.

Polyethylene presents some unusual problems because of its lack of receptivity to most inks. Various processes have been designed to prime or treat the polyethylene surface to improve ink adhesion and durability. Most converters are aware of this problem and have taken steps to improve the ink anchorage by some of the available processes. In the case of polyethylene, it is suggested that you obtain samples from different converters to see which supplier has solved this anchorage problem with a maximum of durability at lowest cost.

Polyethylene permeability

QUESTION: *We would like your comments regarding the use of polyethylene containers for toilet water, liquid shampoos, deodorants and similar products. We understand there are some problems in connection with the use of polyethylene with such products and we would like to know how to avoid complaints after the packages have been put on the market. Can you advise us on this matter?*

ANSWER: Polyethylene is permeated by many organic liquids of the type used for essences and flavoring materials. It is also affected by surface-action agents such as some of the soaps and solvents of various kinds. Furthermore, polyethylene has some permeability towards atmospheric oxygen and this can result in oxidation of complex cosmetic products. The thicker the polyethylene wall, the slower the rate at which these reactions occur. But even with the wall thicknesses used in bottles, product deterioration may occur with extended shelf life.

A good guide in understanding these problems is a series of two articles which appeared in *MODERN PACKAGING* entitled "Polyethylene Permeability" which ran in the July, 1948, and March, 1949, issues. These articles give a very complete picture of the problems in connection with the use of polyethylene bottles for many different kinds of products. It is always advisable to obtain some of the customers' products and have your laboratory make an accelerated aging test to determine if some of the product components are unsuited for this kind of package. If you find that a given product as it is presently manufactured and packaged in glass doesn't show a satisfactory shelf life with polyethylene, it is sometimes possible to modify the ingredients so as to develop greater stability.

Successful packaging boils down to three essentials



Here's a *variety* package that offers shoppers all the fixin's for a New England boiled dinner . . . plus the bonus of a meat coupon. Like any *effective* package, it's based on three important factors:

Knowledge of buying habits—today's busy shoppers have shown that they buy convenience . . . and that they like to see what they buy.

Proper packaging film—one that gives the product eye-catching display . . . and best meets its protective needs.

Efficient package construction—planned to make most economical use of materials . . . permit easy loading and sealing.

No matter what kind of package your product requires, let Du Pont help you with all these essentials. Get in touch with your Du Pont representative. He'll help you select from the 115 varieties of three basic films—Cellophane, Polyethylene and Acetate—offered by Du Pont. Or, for full information, including the latest Du Pont studies of buying habits in your field, write: E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

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2. **TECHNICAL** assistance to help you plan the most practical and efficient construction of your package.
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CELLOPHANE
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Better Things for Better Living
... through Chemistry

Equipment and materials

THREE TYPES OF AEROSOL VALVES

formerly supplied exclusively to the custom trade by the Oil Equipment Laboratories, Elizabeth, N. J., are now available to the open market. These Pres-O aerosol valves permit the loading of both product and propellant through the valve itself,



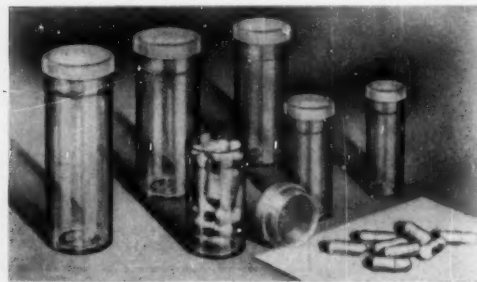
without need for refrigeration. The valve is said to be non-clogging and to allow full control of the spray pattern. The three types include the Tilt-Top, for foam, shaving creams, whipped cream, etc., which is operated by tilting the package and applying light finger pressure which deflects the spout; the Touch-Top, operated by finger pressure on the crest, for cosmetics, hair lacquers, insecticides, fire-extinguishing compounds and paints; the Twist-Top, adaptable for either spray or foam, opened and closed by a twist using finger and thumb. The Twist-Top is of one-piece construction with no over-cap and offers speedy fitting, with no extra parts to be mislaid. All three tops are available in a variety of colors and can be used on crown cans, seamed cans or any other package suitable for pressurized dispensing, the manufacturer states.

TWO NEW CUSHIONING MATERIALS

for protective packaging of furniture, announced by the Jiffy Mfg. Co., Hillside, N. J., are trade named "Kushion-Kraft" and "Custom-Wrap." The Kushion-Kraft pads and blankets for interior and exterior protection are constructed with multiple layers of indented kraft, are extremely rugged in construction and yet non-abrasive, according to the maker. Custom-Wrap for packing case goods is made of indented layers of soft, resilient facial tissue with a kraft backing.

NEW-STYLE PLASTIC VIALS

announced by the Owens-Illinois Glass Co., Prescription Ware Div., Toledo 1, Ohio, feature reinforced openings to give the package added strength and resistance to cracking and splitting. This, together with a special reverse taper polyethylene stopper,



is said to give the new containers a degree of moistureproofness and airtightness which is unusual in a plastic vial. These Plastainer vials, newest addition of the company's Duraglas Rx line, have a greater diameter in the larger sizes, which makes them easier to fill and provides greater stability. They come in six sizes ranging from approximately 3 to 15 drams.

A NEW TREATMENT FOR POLYETHYLENE FILM

has been developed which is said to increase ink adhesion, speed up press runs, lower printing costs and help solve the major problems of printing on this packaging material. The new process was developed by Chester Packaging Products Corp., Yonkers, N. Y., for film made of Bakelite polyethylene resins. Called Cheslene TF, the new treated film can be printed by a wider number of different and faster printing processes with maximum coverage and high uniformity of impression, according to the Chester company. More brilliant color, greater design possibilities and better printing permanence are also reported for the new film. The need for overcoating the film after printing is said to be lessened by the new coating. Cheslene TF can be used as an unsupported film and as a lamination to other flexible packaging materials.

A NEW RED REINFORCED GUMMED TEAR-STRIP TAPE

for shipping cartons has been announced by General Gummed Products, Inc., 126-15-89 Ave., Richmond Hill 18, Long Island, N. Y. This new tear-tape, trade named "Wolco Rip-A-Tape," is applied by the box manufacturer to the inside of the carton blank, with a tab being left on the outside for convenient ripping open of the box. This tape is applied with existing box-taping equipment and may be used for corrugated cartons that are either taped, glued or stitched. Tear tapes on cartons enable easier and faster opening, eliminate possibility of damage to contents and prevent injury to personnel since no knife is needed.

THREE-DIMENSIONAL TRANSPARENCY DISPLAYS

offered by the Videx Corp., 150 E. 46 St., New York 17, are reportedly produced under a new process whereby the color transparencies are economically lithographed in quantity on vinyl, giving an illusion of depth when mounted in inexpensive light boxes using conventional light bulbs. With this new-type display actual textures and colors are realistically duplicated, the company says, and there is no blur, jump or distortion. The Videx process involves a specially prepared lithographic transparency, the picture being taken with a special camera and the print mounted in a back-lighted frame. Photographs taken can also be used to make conventional advertising plates.

VACUUM FORMING OF PLASTICS

is now being offered in the creative display field by Merit Displays Co., 120 E. 16 St., New York. The unusual shapes formed from plastic materials, including transparent metalized plastic sheeting, are called Blister-Pak. In combination with cardboard, plywood and metals, the company reports, they form displays



"Standard" KIMPAK Type 301

The new economical, general purpose interior packaging material

Now — the unmatched protection of KIMPAK* at a price that challenges low-cost materials. That's the remarkable advantage of new "Standard" KIMPAK—Type 301!

And this latest addition to the KIMPAK line is designed with these general-purpose features to meet your particular needs:

- Complete range of standard thicknesses
- Widest selection of standard backing papers
- Plain or embossed at the same low price
- Available in rolls or sheets
- Widths from 2" to 60"

No other interior packaging material compares with New "Standard" KIMPAK—Type 301. To convince yourself, contact your KIMPAK distributor or mail the coupon today.



A Product of
Kimberly-Clark



KIMBERLY-CLARK CORPORATION
Dept. L-83, Neenah, Wisconsin

We are interested in further information about new "Standard" Kimpak—Type 301.

Name

Address

City Zone State

Our product is

LABEL SEAL-IT

FOLDS-SEALS LABELS



CUTS LABOR COSTS! Label Seal-It takes the hand-work out of packaging... eliminates pins and stapling. *One* operator does the work of *two*! These savings alone actually pay for Label Seal-It in a few short months. Cuts label expense too... uses *ordinary* printer's enamel stock instead of special thermoplastic coated papers. Seals all heat sealable bag materials—Cellophane Polyethylene, Pliofilm, etc.

NEWLY IMPROVED—now equipped with latest type vacuum pickup which insures individual label feeding! Built-in cam driven pump—no extra vacuum equipment to buy.

Let us prove Label Seal-It is your best buy!
Full line of Heat Seal-It machines available.

★ **GLOBE** ★
HEAT-SEAL, INC.
HEAT SEAL-IT DIVISION

Write for Circular

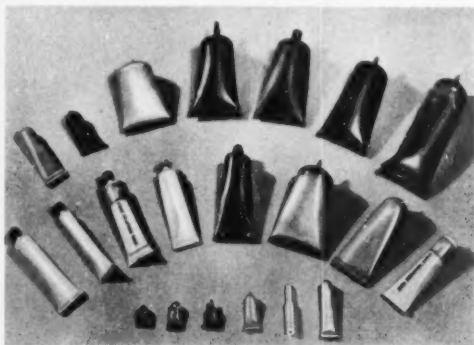
3380 SOUTH ROBERTSON BLVD., LOS ANGELES 34, CALIFORNIA

Equipment and materials

for products that can be sold as individual, completely encased units, visible, free from handling, dust, contamination, moisture, etc. Products also can be Blister-Pak packaged in multiple units on counter display cards and larger dimensional forms can be produced on an assembly basis.

NEW VINYL PLASTIC COLLAPSIBLE TUBES

that are reported to be practical and economical for packaging such products as tooth paste, shaving cream, oil paints, etc., have been developed by the Wallace Container Co., Los Angeles. They are said to be so strong that they will withstand a



200-lb. weight without rupturing at the sides or seams. They are filled on regular tube-filling machines equipped with a simple adapter to heat seal the bottoms. The new tubes are made of B. F. Goodrich Chemical Co.'s Geon vinyl resins. Composition of the vinyl plastic can be varied to provide maximum resistance to chemicals, oils and greases contained in the packaged product.

Cost of the tubes is said to run about the same as tin, lead and aluminum containers. Economic savings, according to Wallace, come from its non-breakability in handling and shipping. Tubes remain flexible at temperatures as low as minus 65 deg. F. and hot filling is possible since they will stand up to 250 deg. F. before softening. Tubes can be boiled in water by the packager for sterilization. Tubes can be made transparent, opaque or in any color, with printing directly on the plastic surface. Extensive tests have been conducted by the Wallace company; additional tests are being conducted by an independent testing laboratory and by several pharmaceutical houses. The Wallace Container Co. plans to make the tubes, print labels on them and ship them to the customer with the tubes open at the bottom. The customer fills them on his regular tube-filling equipment and heat seals the bottom on a special adapter which is being supplied by the Wallace company.

A FAST-SETTING, RESIN-TYPE EMULSION

for use as a seam adhesive on satchel-bottom bags, known as Resyn 3100, has been announced by National Adhesives, division of National Starch Products, Inc., 270 Madison Ave., New York 16. Light in color, it gives high coverage since it can be applied in a thin film and leaves no residual odor, according to the company. It is reported to offer excellent adhesion on many difficult paper stocks and to provide a degree of moisture resistance that is not obtainable from ordinary vegetable, bag-seam adhesives. Its quick-setting characteristic is said to eliminate "leakers" or small unadhered areas along bag seams, par-

packaging news...



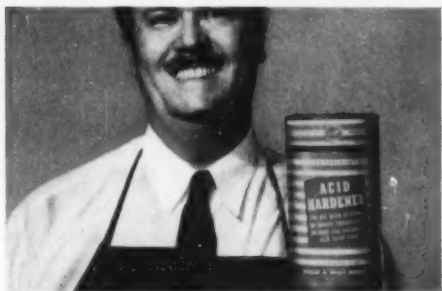
Acme Paints has attained excellent consumer recognition for their insecticide, 6% Chlordane Dust, packaged in this red, yellow and blue paper canister produced by Harcord. Response indicates stronger trade and consumer acceptance of this colorful package—a perfect eye stopper on the counter or shelf.



by **HARCORD**



Dealer interest hit a new high with the repackaging by Copper Clad Products Inc. of Samee, miracle cleanser for copper ware. Harcord's scientifically designed paper canister affords moisture protection to the contents. Competitively priced packaging helps sell good merchandise.



A modern and distinctive package, this grey-striped paper canister for Philip A. Hunt's Acid Hardener reflects the quality product it contains. The general customer reaction to this attractive canister, produced by Harcord, has been extremely gratifying in terms of sales.



Synklor-50-W, an all-round insecticide popular with home gardeners over the nation, is made by U. S. Rubber Co., Naugatuck Chemical Division, and packaged in a bright yellow canister imprinted in blue. The use of paper canister packaging by Harcord has played a part in its success.

HARCORD MANUFACTURING CO., INC., PAPER CANISTERS
125 Monitor St., Dept. MP-8, Jersey City, N. J. — N. Y. Phone: BArcley 7-5685

Specify **EVENFLO** engraved rolls

—FOR
CONSISTENTLY
GOOD
COVERAGE

WITH



GLUES
WAXES
PLASTICS
LACQUERS
HOT MELTS
ADHESIVES
FLEXOGRAPHIC INKS

**If it flows, EVENFLO
can apply it better!**

The answer to your problems involving the application of fluids. Evenflo engraved rolls apply your ink or coatings in the correct amount, continuously and automatically. No time-consuming adjustments are required and materials are conserved because of fewer rejects due to faulty application. Evenflo Engraved Rolls can improve your presswork and step up the efficiency of your coating operations by assuring uniform coverage.



Write for new Data Sheet describing Evenflo
Engraving Patterns and their applications

The new Evenflo Data Sheet is a complete guide to the use of engraved applicator rolls. Fully illustrated and includes tables of sizes. Flexographic printers, paper coaters and specialty makers will find it helpful. Call or write Pamarco for your Evenflo Guide, today!

MANUFACTURED BY

PAMARCO

EVENFLO ENGRAVED ROLLERS
NO-FLEX PLATE ROLLS

PAPER MACHINERY & RESEARCH • INC
1014 OAK STREET • ROSELLE, NEW JERSEY

LOW COST BAGGER



**FAST—
EASY
TO
USE!**

**Handles 101
Small Products**

ONLY \$60.00

Slightly higher with
extra large bag
chute.

The Anderson Bagger, Model 134, is a simple, low cost machine that is doing an outstanding job for thousands of users in many industries. Operator can fill a bag and place it in a carton in one operation. Stainless steel bag chute, capacity 200 bags, adjustable to bag sizes. Blower, equipped with air filter, opens bag and keeps it free from foreign matter.

Easy to operate at high speed with a minimum of effort. Here is a machine that pays for itself quickly. Write today and tell us your product.

Send Today for Bulletin No. 8-29



ANDERSON BROS. MFG. CO., ROCKFORD, ILL.



Manufacturers of **TRANSPARENT ROUND BOXES**

Metal Bottoms

Cardboard Bottoms

for

- Confectionery
- Nuts
- Pencils
- Matches
- Jewelry
- Combs
- Notions
- Cosmetics
- Toys
- Underwear
- Brushes
- Bootsies
- Flowers
- Dolls
- Industrial Uses

Gold Stamped • Screened • Printed



**AMERICAN
CELLUBOX
CORP**

476 Broome St., N. Y., N. Y.

Packaging Experts

MODERN PACKAGING

Equipment and materials

ticularly at score points. The new product is particularly suggested by the supplier for the manufacture of flour-bags fabricated from clay-coated or kraft stock.

A NEW TRAY ELEVATING CONVEYOR



designed to elevate or lower cartons, cases, crates, drums, barrels, etc., while maintaining the conveyed object in a horizontal plane has been announced by Counsel Machine Co., Inc., 8 Hathaway St., Wallington, N. J. Pick-up and discharge can be automatic or manual. Speed range of this Robo-Lift unit depends somewhat on the size of the container, method of in-feed, etc., but for general purposes speeds to 12 per min. and in many instances more can be attained. Multi-floor operations are possible with the Robo-Lift picking up cases or cartons at several levels and depositing them at the loading platform, the maker reports. The conveyor is also capable of vertical to horizontal or horizontal to vertical conveyance without transfer. Safety devices incorporated in the unit are designed to prevent carton damage.

STANDARD-DESIGN PACKS FOR PROCESSED MEATS

have been brought out by Marathon Corp., Menasha, Wis., to test interest in a printed, brand-name package which does not give the packer an exclusive design. The design is being offered



on a first-come, first-served basis, with no territory exclusives. Five packages are currently available—a 1-lb. Look Pak for link sausage or franks, ½-lb. and 1-lb. Wallet Paks for SC pork links, 1-lb. Pick Pak Contour for bacon and a 1-lb. Wallet Pak for bacon ends and pieces. Customer brand names and necessary product specifications are imprinted in one color, although a choice of colors is available. The manufacturer points out that packers who distribute on a local or regional basis will be able, with these packages, to establish brand identification quickly and economically. Plans call for similar luncheon-meat and lard cartons in the near future.

A NEW HIGH-STRENGTH, LIGHT-WEIGHT MATERIAL

is being marketed under the trade name of Aircomb by the Douglas Aircraft Co.'s plant in Bell, Calif. Made of kraft paper honeycomb in structure and impregnated with a phenolic resin, it is pre-cut in any thickness from 1/16 to 5 in. and in any length desired. It may be sandwiched between thin facings of aluminum, stainless steel, wood, plastics, etc. Aside for its use in the construction of products requiring high rigidity, high strength, low weight and consistent quality for close-tolerance work, it is suggested by the manufacturer for making cargo

PUT AUTOMATIC CHECKWEIGHING ON YOUR PAYROLL . . .

SELECTROL
Model 1200

THERE IS
NO
SUBSTITUTE
FOR
EXACT
WEIGHT



SAVE LABOR

The SELECTROL Automatic Checkweigher is designed for direct insertion in your production line to eliminate manual weighing or spot checkweighing.

A fully automatic, high speed scale which will weigh, classify, sort and count your products into three separate channels, correct weight, over weight and underweight.

CHECK THESE BENEFITS . . .

- ♦ Saves labor — only the incorrect units require handling.
- ♦ Saves product normally given away in overweight units.
- ♦ Speeds production — weighs up to 100 units per minute.
- ♦ Eliminates inadvertent distribution of shortweight units.
- ♦ Removes human errors — accurate down to one gram on rejection.
- ♦ Signals your filling or processing operators for constant control.

Write today for details.

EXACT WEIGHT SCALES

BETTER QUALITY CONTROL
BETTER COST CONTROL

THE EXACT WEIGHT SCALE COMPANY

914 W. Fifth Ave., Columbus 8, Ohio
2920 Bloor St., West, Toronto 18, Canada

Paramount Packaging Pointers

'LS or MAT' MEANS FINER PORK SAUSAGE PACKAGING

Duplex, double wall 'LS or MAT' cellophane is only part of the answer to problem pork sausage packaging. Paramount's research staff recommends these special type films to retard sliming and molding and maintain original fresh look and tantalizing taste.

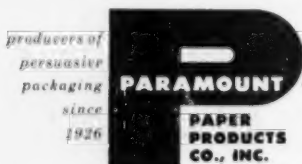


Smart package design, sparkling, clear Para-Brite color reproduction; timely recipes and other important merchandising features have created a repeat sales bonanza for these leading meat packers. Paramount is proud, indeed, to have contributed their expert packaging facilities.

PARAMOUNT'S FREE 4-D PACKAGING OFFER

First, we'll *DREAM* for spanking-fresh ideas to face-lift and sales-lift your packaging requirements. Then, we'll *DEVELOP* every possible merchandising idea and sales-stimulating message. Then, we'll *DRAW* until the smartest designs and color combinations are obtained. And then, we'll *DELIVER!*

Yes, at no obligation whatever, the finished package plan is yours with our compliments. Just let us know the name of your product and where we may purchase it.



HAMILTON ST. AT 19th • PHILA. 30, PA.

FLEXOGRAPHIC AND GRAVURE PRINTERS OF CELLOPHANE, GLASSINE, ACETATE, POLYETHYLENE AND PLASTICS IN BAGS, ROLLS AND SHEETS

OFFICES:

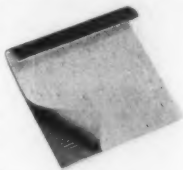
New York
Chicago
Boston
Baltimore
Cincinnati
Dayton
Norfolk

Equipment and materials

containers and pallets. It is reported as durable, fire and pest resistant, with good insulation qualities.

A NEW PROTECTIVE PACKING MATERIAL

developed by the Chippewa Paper Products Co., Inc., 2425 S. Rockwell St., Chicago 8, combines the advantages of shock resistance of Chippaflex flexible corrugated with the soft, non-abrasive cushioning of Kimpak interior packaging. This new "Chippaflex lined with Kimpak" combination, developed after several years of research, is suggested for shipping articles with highly polished wood surfaces (furniture), highly polished metal surfaces (instruments) and delicate articles of all kinds such as in the electronics field. A wide range of weights and grades of the "Chippaflex lined with Kimpak" is available in the form of sheets, sleeves, built-up single-face pads, corner pads and corner posts, and is sold through selected and accredited paper merchants.



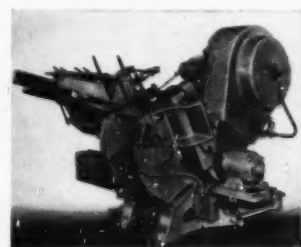
MEDIUM-WEIGHT FLUORESCENT PAPER

especially developed for interior point-of-purchase displays and similar applications is being produced by the Radiant Color Co., 830 Isabella St., Oakland 7, Calif. The new paper, designated as Velva-Glo "55," comes in 22-by-28-in. sheets. Finished weight is 55 lbs. to the ream. Colors available are blue, cerise, chartreuse, red, orange-yellow, orange-red, green and orange.

A HAND PRINTER AND STENCIL COMBINATION

for labeling shipping containers, developed by Weber Label & Marking Systems, Division of Weber Addressing Machine Co., Mt. Prospect, Ill., consists of the Web-O-Print JC-3 hand printer and Kustom-Kut (die-cut) stencils pre-cut to print a facsimile label or form. The customer fills in the variable information with typewriter or by hand with a stylus. The stencil is then attached to the hand printer. The new combination is said to provide "direct-to-container" marking and addressing at speeds of from 25 to 40 cartons per minute.

HIGH-SPEED PRODUCTION OF CAP ENDS, SCREW CAPS and other light stampings is possible on the newly redesigned Hamilton No. 401 Strip Feed Press, now equipped with multiple dies. The machine, produced by the Hamilton Division of Baldwin-Lima-Hamilton



Corp., Hamilton, Ohio, has a continuous feed stack that provides for at least 1 hr. production run before reloading. Rated capacity of the unit is 25 tons. Features of the new machine include an improved frame design that maintains alignment without tie bars

and a Fawick Air-Flex clutch and brake directly on the crankshaft for smooth starting and almost instantaneous stopping. Sectional friction shoes in the clutch eliminate improper adjustment and make wear compensation automatic, the company

MODERN PACKAGING

Taking the place of a million-and-a-half missing men

As you know, quality in the manufacture of closures is essential . . .

But today, closures must know how to sell, too. For there are a million-and-a-half fewer sales clerks in food stores now than there were in 1943, and 84 cents out of every purchase dollar of mass-consumed, fast-consumed items are sold by self-service. Your advertising, merchandising, and packaging are the only substitute your product has for these million and a half missing members of your sales force to the home market.

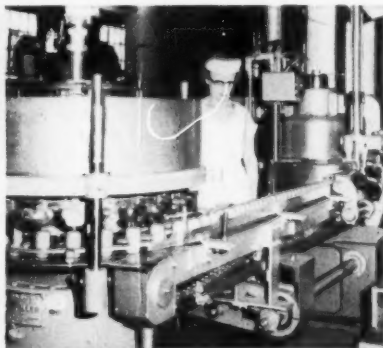


Quality is vital. Experts constantly try out new ideas . . . tear them apart to find trouble before it starts.



Research keeps quality in check

This machine accurately grinds contours on pre-hardened blanks for precision curling, knurling and threading of metal closures.



Greater speeds with better caps

Quality caps are built to take the abuse of high-speed lines. Result: greater capping efficiency.



Today's package must sell itself

Shoppers pause only 8 seconds before choosing a brand. Your package must know how to do a sales job and do it quickly.



BEFORE—This package lacks the final touch. Good grooming from "head to foot" is the mark of a self-salesman.



AFTER—Salespackage that's dressed to sell. See what a big difference a little change makes. Smart CLOSURE-label combination attracts instant attention.

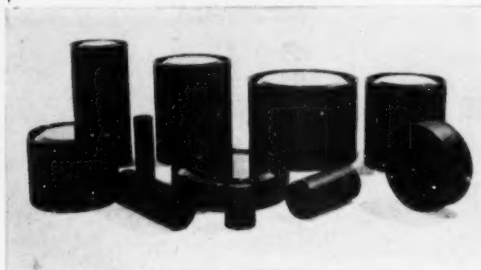
CLOSURE DIVISION

**OWENS-ILLINOIS
GLASS COMPANY**

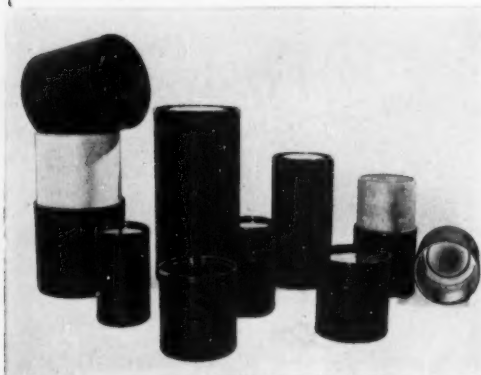
Toledo 1, Ohio

Branches in Principal Cities

GOVERNMENT SPECIFICATIONS CONTAINERS FOR SPARE PARTS



Single Body Type MIL-C-12147



Telescopic Type MIL-C-5405—DAPD 154

Has your organization investigated the use of water resistant fiber cans with metal ends? (Method IC-4, JAN-P-116A) We are one of the few organizations tooled and presently supply leading Truck, Aviation, Tank and Electronics manufacturers with Military Specification spare parts containers. Our customers report that this method of packaging has shown them cost savings, in many cases, up to 300% over previous methods.

Write, wire or phone

UNITED CAN COMPANY, INC.

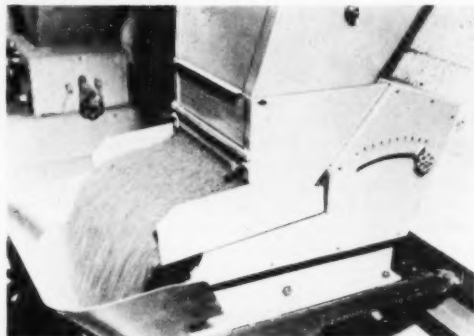
Plant & General Offices Box 47 Phillipsburg, N. J. Tel.: Phillipsburg 5-1135	New York Sales Office 34 Park Row Tel.: Cortland 7-2049	Royal Oak (Detroit) Sales Office 1219 Woodward Avenue Tel.: Lincoln 4-0710
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Equipment and materials

reports. The press operates on its own built-in vacuum system or any regular shop system.

A NEW VIBRATING FEEDER

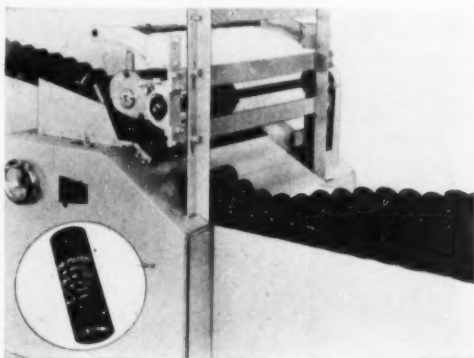
with highly flexible feed rates, offered by the Richardson Scale Co., Clifton, N. J., is reported to turn out from 0.1 to 20 cu. ft. per min. of grain, feed, rock, fertilizer or chemical products. The feeder takes up little space, measuring 28 in. long, 17 in.



wide and 19 in. high. Its $\frac{3}{4}$ -h.p. motor makes the machine inexpensive to operate. The machine will feed uphill as well as downhill, although uphill feed decreases output somewhat. Design of the feeder is based upon the British Velfeeder developed by Henry Simon, Ltd., Stockport, England.

PRODUCTION-LINE PRINTING OF CYLINDERS

ranging from 1 to 12 in. in diameter and 1½ to 48 in. in length is possible with a new automatic machine recently introduced by Adolph Gottscho, Inc., Hillside 5, N. J. Called the "Auto-Cyl-indaprinter," the machine illustrated is designed to print either complete legends or changeable codes and lot numbers on cans,



canisters, tubes, etc., as they are packed, thus eliminating the need for stocking large quantities of preprinted containers and saving labor for hand stamping. Cylindrical containers, loaded or empty, may be fed to the machine automatically or manually. Speeds up to 80 units per minute are claimed by the manufacturer of the equipment.

The unit is said to use quick-drying ink of almost any color,

Keep things fresh longer in thrifty Flav-O-Tainer!

To keep moist products moist and dry products dry — with economy — you can't beat Betner's Flav-O-Tainer bags.

Thanks to their PLIOFILM* lining and hermetically-sealed inner seams, they protect freshness over a long shelf life. They guard the vitamin potency, taste and aroma of foods. And they give equal protection to a wide range of non-edible, hydroscopic products. Your final heat-sealing binds film to film with an air and moisture-defying grip.

Let us show you what Flav-O-Tainer can do for you. And ask about Continental's Tailor-Made Package Service which makes available the finest in engineering and research.



PLIOFILM* liner gives prolonged sales life,
prevents moisture-absorption or drying out

BETNER bag fills smoothly in automatic
high-speed or semi-automatic operations

*TM THE GOODYEAR T. & R. CO

BETNER

Division

CONTINENTAL CAN COMPANY, INC.

DEVON, PENNSYLVANIA



Plants also located in RICHMOND, VA., PARIS, TEX.,
BEAUMONT, TEX., APPLETON, WIS. and LOS ANGELES, CALIF.

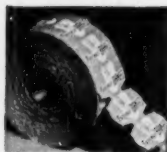




Custom labels...imprinted and applied to save dollars daily!

CAN BE MOUNTED ON "OLIVER" WRAPPERS NOW IN USE . . . ALSO ON OTHER MAKES: PACKAGE MACHINERY, HAYSEN, BATTLE CREEK, SOME NATIONAL, AMF, CAMPBELL (HUDSON-SHARP) MACHINES.

ROLL-TYPE LABELS



Smart diecut labels that sell your goods

"Oliver" labels are known for their beauty. Let us design a label, or family of labels to meet your needs. Choose from 100 shapes and sizes. Special shapes made to suit your needs. "Oliver" labels have a lustrous printing surface; reverse side has thermoplastic coating.

ROLL-TYPE LABELER



Fully automatic . . . gives years of service

The "Oliver" Labeler is synchronized with wrapping operation to cut a diecut label from the roll just before it is heat-sealed to wrapper. Label can be accurately registered on package. Rolls of labels are quickly mounted on reel. The Labeler is precision-built to give long, trouble-free service.

"OLIVER" ROLL-TYPE LABEL IMPRINTER



Avoids waste, and reduces inventory costs

The Imprinter, attached to Labeler, imprints title, quantity, price, code and ingredients on labels as they are used. Each imprint is self-registered in blank spaces of label. Imprint items can be changed in a few seconds. We'll design your label to meet special requirements for imprinting. This system soon pays for itself.

Write for complete information and label samples



OLIVER MACHINERY COMPANY
GRAND RAPIDS 2, MICHIGAN, U.S.A.

Equipment and materials

including metallic, to meet all Government and commercial specification.

Also announced by Gottscho are new twin-action coders that mark four sides of cases simultaneously. The Rolacoder "200," which marks both the rear and one side of shipping cases as part of the sealing and conveying operation, has been designed to work in tandem with the Rolacoder "500," which marks the front and one side panel.

A NEW ATTACHMENT FOR SPEEDIER FILLING

is being offered by Pak-Rapid, Inc., 530 N. 21 St., Philadelphia 30. Over 60 filled packages per minute are said to be delivered through this new unit. It feeds hardware, electrical and similar products to the company's Auto-Pak machine which automatically forms two sheets of heat-sealing material around the items, seals the four sides, cuts off and delivers a completely sealed package. Cellophane, foil, glassine, heat-sealing kraft, etc., can be used in the machine. Packages made on the machine can range from 1 in. square by $\frac{1}{2}$ in. thick to 6 in. square. The unit is reported to be simple and economical to operate.

FILM BAGS WITH REINFORCED TOPS

are being produced on a machine developed by G. van der Muelen & Zn. N. V., Prins Hendrikkade 173, Amsterdam-C., Holland. The machine, called the Renka, is now available to American users. Fold-over-top bags made automatically on the machine are reported to be inexpensive, to offer greater resistance to tearing during the packaging process and to permit



Shirt bag illustrated above has string-reinforced top. At right, Dutch machine developed for making the new-type film bags.



greater packaging speed due to the fact that products can be inserted in the bags with less careful handling. Also, at the retail level, products may be removed from the bags and replaced any number of times without tearing, thus the bags always present a neat appearance.

Nine different bag designs can be made on the bag-making machine: flat bags with folded top; bags with inserted strips (paper strips, cord or string) in the fold for reinforcing the top; bags with round-shaped flaps; bags with both flaps and fold-over top; paper-backed bags with reinforced top on the film side; tobacco pouches; gusset bags with two side seams and no bottom seam; paper bags with transparent-film window; bags without folds or flaps. Bag sizes may range from 2 to 22½ in. in length and from 3 to 13 in. in width. Minimum length, it will be noted, is smaller than the minimum width. This is due to the principle of the new bag maker, which makes the bags from the width direction of the material rather than the conventional method of making bags from the length direc-

is there a **SALES**
idea for you...

here?



Carters

or here?



Printed or plain—in a dozen different ways—
Olin Cellophane is helping to spark the sales-appeal
of many of America's best known products.

Would you like to see some of the new packaging ideas
that versatile Olin Cellophane makes possible?
To increase sales by livening up an established product
or by launching a new one excitingly? To increase
product protection? To cut packaging costs?

Our merchandising service is full of ideas—
and ready to help you with your packaging problems.
The coupon below will place a consultant at your
service, with no obligation to you.



Save your time and your
secretary's. Just have her put:

this in a letterhead and
drop it in the mail.

Olin Cellophane
155 Madison Avenue, New York 17, N. Y.
Manufacturers of Harvard Polyethylene Flat Film and Tubing

I should like to talk to an Olin Cellophane consultant about
packaging my product.

Name of Company _____

Address _____

Individual to see _____



picture of success...

your products at home

Package your products in the containers that your customers and prospects want. Package in Lerner Plastic Vials because they offer the ultimate in eye appeal and protection and because they give your customers durable, long-lasting containers in which to retain your products. After the contents have been consumed, the containers are re-used for other purposes, and your name remains with your customers as a reminder for additional purchases. You have proved that you use the finest package available, and the cost to you is no more than ordinary packaging.

CONSIDER THESE UNEXCELLED ADVANTAGES OF LERNER PLASTIC CONTAINERS.

- They Are Shatterproof, Assuring Customer Good-Will
- 75% Lighter Than Glass, Saving You Money in Packing and Shipping
- Not Affected by Alcohols, Alkalis, Weak Acids
- Tasteless and Odorless
- Available Clear or Opaque, in a Host of Bright, Lustrous Colors
- Can be Printed or Decorated during Manufacture
- Always Uniform for Easy Labeling, Filling and Capping
- Available with Metal or Plastic Closures



Write for complete catalog information and samples. Detail your problems and let our creative staff help. Lerner is famous for Experience, Service and Creative Engineering.

PIONEERS AND PACESETTERS IN PLASTIC PACKAGING
302 SOUTH AVENUE, GARWOOD, NEW JERSEY

Equipment and materials

tion. Production speeds range from approximately 10,000 to 20,000 bags per hour. However, the machine can be equipped with a second set of cutting knives for making two bags from each width of material, in which case production speeds are doubled to range from approximately 20,000 to 40,000 bags per hour. The machine is 62 in. high, 54 in. wide, occupies 31 by 33 in. of floor space and weighs approximately 2,000 lbs. Change-over from one bag size to another is reported to be a simple operation requiring little time.

A DISPENSER DRUM FOR VCI PAPERS

offered by the Special Products Co., Cargo Packers, Inc., 73 Rutledge St., Brooklyn 11, N. Y. is said to prevent deterioration in the quality of VCI papers. The drums offer safe storage of



pre-cut VCI papers and make it possible to use these papers in mass production. The dispenser drum is a completely self-contained storage unit. It is of extra-strong laminated construction, heavy foil lined. Full hermetic sealing prevents loss of effectiveness of the stored papers. Gravity-locking door with positive-action snap lock assures airtight protection at all times, the manufacturer reports. In mass-production operations, the dispensers are located on assembly lines. They occupy a minimum of floor space.

AN INSULATED, FLEXIBLE FROZEN-FOOD SHIPPER

known as Freezerator is reported to enable the shipment of frozen foods and perishables in non-refrigerated trucks at the lowest possible cost because of higher thermal efficiency and longer life expectancy. Made by



Marty Gilman, Inc., Gilman, Conn., these insulated shippers have been laboratory tested and were found to be superior to other collapsible containers of this type, the company states. In addition to the economies of shipping offered by the Freezerator, this new insulated shipper provides appreciable savings in storage space and may

be re-used for years. Made of Neoprene-coated nylon, with a multiplicity of layers for increased insulation and waterproofed, the Freezerator uses reinforced cotton insulation. It measures 20 in. wide by 24 in. long and 18 in. deep. Its capacity is 5 cu. ft. and it weighs 20 lbs.

A NEW LOW-COST STRIPPABLE COATING

developed by the Plastics Division of Ernst Biscoff Co., Inc., Ivoryton, Conn., is reported to offer protection against corrosion or abrasion during storage, handling or shipment of metal tools and parts. Known as Thermo-Cote D, this new compound has an ethylcellulose base and is applied by the hot-dip process. It is supplied in convenient small blocks. The maker reports that relatively thin films can be applied at low dip temperature and that the material has good stability and transparency.

Makes good merchandise sell better...

Like to bring extra sparkle to a model-builder's eye? Of course you would. Then package model accessories and tools in crystal-clear, color-true Kodapak Sheet. This tough, transparent material protects metals from dirt, dust, and corroding finger moisture... makes all merchandise look new longer—sell better.

And that's not all. Kodapak Sheet is the favorite of the package makers, too. It comes free from bubbles and surface defects... is uniform... economical... easy to work with. For further information—colors, types available, names of specializing firms—consult our representative, or write:

**Cellulose Products Division
Eastman Kodak Company
Rochester 4, New York**

Sales offices:

New York, Chicago, Dallas.

Sales representatives:

Cleveland, Philadelphia, Providence.

Distributors:

San Francisco, Los Angeles, Portland,

Seattle (Wilson & Geo. Meyer & Co.);

Toronto, Montreal (Paper Sales, Ltd.).

Kodapak Sheet

"KODAPAK" IS A TRADE-MARK



Plants and people

Truman L. Clapp, president of **Clapp & Poliak, Inc.**, exposition management firm, has announced his retirement from active business. He will make his home in Ft. Lauderdale, Fla. **Saul Poliak** is now president of the firm, which will continue to operate under the same name. Messrs. Clapp & Poliak are well known in the packaging field, having managed the AMA Packaging Show since its inception 23 years ago. The firm, organized in 1929, is one of the nation's largest in the field of producing and managing industrial expositions. Among the expositions now managed by Clapp & Poliak are the National Plastics Exposition, the Machine Tool Show, the National Materials Handling Exposition, the Plant Maintenance & Engineering Show, The Western Packaging & Materials Handling Exposition, the Exposition of Basic Materials for Industry, the International Soft Drink Industry Exposition and the Brewing Industries Exposition.



T. L. Clapp

Visking Corp., Chicago, has announced that an agreement has been made with **Novacel S.A.** of Paris, France, for the formation of a joint company to manufacture cellulose sausage casings in France. The new company is to be known as **Visora S.A.**

G. D. Peters Co., manufacturer of packaging machinery in Slough, Bucks, England, has been licensed to manufacture the Tuck-O-Mat carton set-up machines developed by **E. L. Bivans, Inc.**, Los Angeles. Peters Co., because dollar shortages prevented European manufacturers from purchasing American labor-saving machines, worked out an agreement with the **New Jersey Machine Co.**, Hoboken, N. J., sole distributors for Bivans. Peters Co. will manufacture and distribute Bivans machines throughout Great Britain, Europe and the British Commonwealth. Negotiations were handled by **George Von Hofe**, New Jersey Machine's president, and **R. Needham**, managing director of the Peters Co.

The Package Machinery Co., Springfield, Mass., has appointed the following agents throughout the country to cover sales and service of the Thrifty Labeler: **MRM Co., Inc.**, Brooklyn, N. Y.; **T. R. Lewis Co.**, Cambridge, Mass.; **Alloy Engineering & Sales Co.**, Atlanta, Ga.; **Kruse Packaging Machinery Co.**, Chicago; **Packaging Equipment, Inc.**, St. Louis, Mo.; **E. A.**

Wagner, Dallas, Tex.; **Hoskins Brokerage**, Denver, Col.; **Duncan Equipment Co.**, Seattle, Wash.; **Peter D. Bowley & Associates**, San Francisco.

New York sales offices of **Standard-Knapp, Div. of Emhart Mfg. Co.**, Portland, Conn., producer of automatic packaging machinery, have been moved to 350 Fifth Ave., New York.

Mosstype Roller Co., Inc., a division of **Mosstype Corp.**, Brooklyn, has moved into its own newly erected building at 150 Franklin Turnpike, Waldwick, N. J. The company makes rubber design rollers for printing. **John Kirby** will continue as manager of Mosstype Roller.

Bemis Bro. Bag Co., St. Louis, Mo., has discontinued bag-manufacturing operations at its Jacksonville plant. The plant was established in 1947 in anticipation of increased textile-bag consumption in the Southeast, but this demand did not develop. Productive capacities at the New Orleans and Memphis plants of Bemis are being increased to supply textile bags in



A. F. G. Raikes(left) and C. W. Akin

the Southeast to bag users formerly supplied by Jacksonville.

A. F. G. Raikes has been appointed as manager of the New York General Sales Div. of Bemis. Mr. Raikes will be succeeded as assistant director of sales in the company's general offices in St. Louis by **C. W. Akin**.

Jagenberg-Werke Akt.-Ges of Dusseldorf, Germany, comprising engineering works, paper converting and adhesive factories, is celebrating its 75th anniversary. The company was founded as a wholesale paper business in 1878 by Ferdinand Emil Jagenberg, who took up paper conversion when his sons developed the machinery. The firm has survived two World Wars and since April, 1945, reconstruction has gone on at a rapid pace.

W. Braun Co., Chicago, distributor and manufacturer of glass containers, closures and packaging specialties, has introduced a new line of polyethylene bottles under the Braun trademark. A subsidiary, **Plasticrafters, Inc.**, has been formed by Braun

to oversee manufacturing and marketing details of the new line. Private-mold designing, applied labeling and decoration will be done through another Braun affiliate, **Glasscrafters, Inc.**

The D & R (Donofrio-Roosevelt) Industries, Inc., Detroit, Mich., packagers of automotive and aircraft parts, will add a special and completely separate department for custom packaging of pills, powders, capsules, etc. All the work will be done on Donofrio and Dismat strip-packaging machines designed and manufactured by **McKay-Davis Chemical Corp.**

Dudley W. Maxon has been elected executive vice president and general manager of **The Ohio Boxboard Co.**, Rittman, Ohio.

Doughboy Industries, Inc., New Richmond, Wis., manufacturer of heat-sealing equipment, has appointed the **R. P. Anderson Co.**, packaging machinery firm with offices at Dallas, Houston and New Orleans, as its official representative. Anderson Co. is headed by **R. P. Anderson**, formerly of King & Anderson. The Dallas territory is managed by **K. F. Booth**, the Louisiana offices by **K. G. Anderson**. States served by the Anderson Co. for Doughboy include Texas, Oklahoma, Louisiana and lower Mississippi.

Pollock Paper Corp., Columbus, Ohio, has appointed **R. L. Roush**, of **Roush Bakery Products Co.**, as western sales representative for the End Label Div. of the corporation. Mr. Roush will handle the sale of Pollock's end labels in the states of California, Idaho, Montana, Nevada, Oregon, Utah and Washington.



M. J. Odell

Malcolm J. Odell has been appointed director of technical research of **Angier Corp.**, Framingham, Mass., manufacturer of protective papers. Mr. Odell, who will be in charge of Angier's program of product improvement and development, has been a partner in the firm **Kochler, Odell & Worden**, packaging consultants, and was formerly associated with **Dewey & Almy Chemical Co.** and **Marshall Field**.

Owens-Illinois Glass Co., Toledo, Ohio, has started construction of a new technical center at Toledo that will consolidate the company's general research program with the engineering activities of its vari-

An H&D idea for you



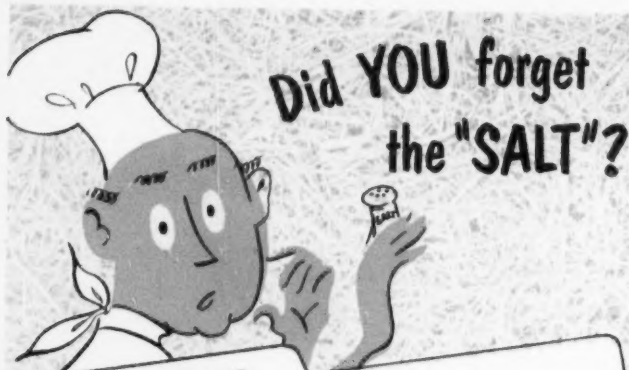
This Handsomely Designed family group of packages reinforces brand name, provides protection, prevents substitutions, encourages display, simplifies stock control. How about your present packages? Write for booklet, "Pack To Attract." Hinde & Dauch, Sandusky 4, Ohio.

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INGREDIENTS FOR PERFECT SHIPPING

- Clean and prepare car carefully
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- Check continuously for tight load
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- CUSHION END-WALLS with heavy PROTEX blankets to absorb shock
- CUSHION FLOORS or RACKS with PROTEX blankets to protect load against snagging

The proper mixture of the above will give perfect results only if that final bit of seasoning, called cushioning, is added. Without it, end crushing, floor snagging and resulting saw-toothed of containers with its accompanying damage is sure to occur even with normal handling.



Superior Cushioning BLANKETS FOR

CUSHIONING FLOORS. PROTEX blankets will take the snag out of the roughest floors and floor racks and more than that, they absorb vertical shock and oscillation.

CUSHIONING END WALLS. The tightest load will normally shift from 5" to 7" from end to end. PROTEX blankets cushion this shock indefinitely.

The application of PROTEX Superior Cushioning Blankets is simple and will cost no more and probably less than your present methods.

Consult us - on how to virtually eliminate telescoping, snagging and crushing of bottled and canned goods shipments. PROTEX blankets more than pay for their cost in damages saved.

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NATIONWIDE SALES & DISTRIBUTION

Plants and people

ous divisions. The aims of the new general research and engineering program are to develop new methods of making and using glass while improving present processes and products. The center is scheduled for completion next year.

Col. Robert L. Mason, San Jose, Calif., has been appointed chairman of the Air Force Packaging & Materials Handling Board, succeeding Lt. Col. Robert W. Johnson. In his new assignment, Col. Mason, who is also chief of AMC's Packaging Branch, becomes head of the Air Force's top packaging and materials handling agency.



Col. Mason

Utility Plastic Bag Co., Inc., has moved to enlarged quarters at 3805-09 S. Racine Ave., Chicago. At the same time, the company has been incorporated with Milton Rifkin, formerly sales manager, as president. The new plant has modern production facilities for converting and printing of polyethylene, cellophane, glassine, acetate, Pliofilm and foil.

An honorary Doctor of Laws degree has been bestowed on Alexander Calder, president and chairman of the board of Union Bag & Paper Corp., New York, by Lawrence College, Appleton, Wis.

H. S. Danie's, executive vice president of Union Bag, has received a testimonial scroll honoring his 20 years of service to his Government and his industry. Wayne Brown, assistant vice president of Crown Zellerbach Corp., made the presentation at a recent meeting of the Paper Bag Institute.

Sutherland Paper Co., Kalamazoo, Mich., has appointed Frank W. Ambler to the company's sales force. He has been assigned the New Orleans territory.

Paul Wrablica, Jr., recently released from the Air Force, has returned to his industrial design practice at Paul Wrablica Associates, 270 Park Ave., New York.

Interchemical Corp., New York, manufacturer of printing inks and chemical coatings, has established a commercial research department. Dr. Zeno Wicks, former member of the Interchemical Research Laboratories, is manager of the new department, reporting to Norman

XX EVERYWHERE UNDER THE SUN ... E

WIRZ TUBES MEAN MORE SALES FOR YOUR PRODUCT

WIRZ collapsible metal tubes enhance the sales appeal of COPPERTONE, Douglas Laboratories' protective sun tan cream. Consumers everywhere like the smart appearance of WIRZ tubes as well as their safety and easy-to-use features. Give your product added sales appeal with convenient, attractive tubes by WIRZ. Write today for your copy of "WIRZ Collapsible Metal Tubes"—no obligation, of course.



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under the
sun

heat seal

gummed

pressure
sensitive

thermoplastic

paper

die cut

foil

embossed



Plants and people

Cassel, vice president of research and development. Dr. Wick's associates are Henry Young and John Duane, with Milton Zucker serving as active consultant.

The Printing Ink Div. of Interchemical has transferred R. Earl Hickcox, metal-decorating specialist from New York to Chicago.

Southern Wood Products Corp., Fulton, Miss., manufacturer of nailed crates and wooden boxes for domestic and export use, has consolidated the company's facilities at a new plant in Fulton.

Myron H. Paul has been appointed Southern Div. sales manager of distributor products for Shelton Mfg. Co., Inc., Newark, N. J. The company manufactures single- and double-faced corrugated board and Shellcrease, Shelton's flexible corrugated wrapping material.

Shawano Paper Mills, Shawano, Wis., has purchased a modern one-story building and land at Gresham, Wis. Growth of Shawano's light-weight packaging and printing paper business necessitates additional converting equipment which will be installed next month.

Omar Greenlee has been appointed general manager of the Skokie, Ill., plant of the Johnses-Coppock Co., flexographic and rotogravure printers.

Charles E. Brady has been appointed to the sales staff of N. T. Gates Co., Philadelphia, Pa. The firm specializes in textile, industrial, and food packaging design and supply, as well as rust-preventive paper, preservatives and oils. Mr. Brady will headquarter in Philadelphia.

Rheem Mfg. Co., New York, has promoted W. S. Rheem, II, to assistant general manager for the entire company. Mr. Rheem's duties will include supervision of all manufacturing and marketing activities in the Southern Div. as well as on the West Coast. He will assist C. V. Coons, vice president and general manager, in administration of all of the company's 12 plants. The company has appointed E. C. Bergen to succeed Mr. Rheem as Western Div. manager at Richmond, Calif.

E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., has announced a program for improvement of cellophane manufacturing at the company's Clinton,

Iowa, plant. The program includes modernization of equipment in the chemical process as well as in the casting and coating areas. The program will be completed in 1954.

Richard D. Weinland has been appointed general manager of purchases for Continental Can Co., Inc., New York. Mr. Weinland was formerly vice president and director of the Continental Overseas Corp., a subsidiary of the company. Clyde Bloedorn is serving as acting manager of Continental Overseas. J. W. Pond has been appointed sales manager for the Atlanta sales district of Continental's Fibre



R. D. Weinland (left) and J. W. Pond

Drum Div. Mr. Pond was formerly sales representative for the Atlanta sales district of the Fibre Drum Div. C. H. Buckley has been appointed products sales manager for beer and carbonated beverage containers.



Mr. Buckley comes to Continental from Pepsi-Cola Bottling Co. James I. Donahue has been named sales manager, general line (non-processed food cans) in Continental's Eastern Metal Div. Leonard G. Cannella has been named New York district sales manager.

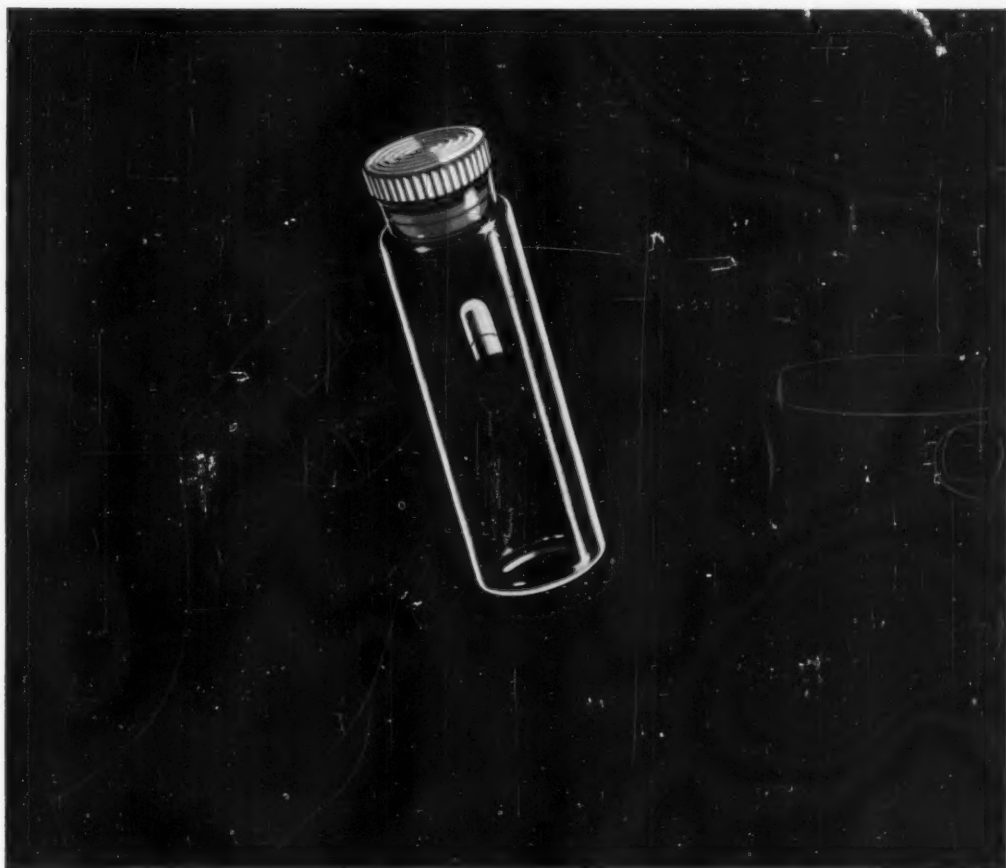
A large storage warehouse is being constructed by Continental in Vernon, Calif. The warehouse is scheduled for completion some time this month and will serve the needs of the customers in the Los Angeles area.

Lynch Corp., Toledo, Ohio, manufacturer of glass-forming machinery and producer of automatic packaging machines and air compressors, has elected Nils G. Anderson, Jr., as vice president in charge of production plants in Anderson, Marion, Indiana, Defiance and Toledo, Ohio to co-ordinate manufacturing procedures for the corporation.

The Packaging Machinery Div. of Lynch has appointed Jack M. Bower as sales engineer in the Los Angeles area. Although he will be located in Los Angeles, Mr. Bower's appointment represents an expansion of the division office in San Francisco, made necessary by the



W. Rheem, II



EVERY PRESCRIPTION IS A "WONDER DRUG" TO SOMEONE

Much has been said and written about the new "wonder drugs" developed by our country's great pharmaceutical laboratories. Most of them come to you in Kimble Opticlear Vials—fit containers for such fine products.

But every prescription that stops pain, or cures illness is a "wonder drug" to its user—a "wonder drug" formulated by the professional skill and to the high ethical standards of your pharmacist.

Your individual "wonder drug" is

likely also to be packaged in a Kimble Opticlear Vial made of clear, sparkling glass with an easy-in, easy-out closure, that is *moisture-proof* beyond anything else on the market. Kimble Opticlear Vials have helped make merchandising successes for a wide variety of pharmaceutical and proprietary tablets and capsules, fancy food items, spices and advertising novelties.

Kimble Opticlear Vials are only one of the many Kimble contributions of engineered glass products to the nation.

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... Opticlear Vials ... Television
Bulbs ... Color-Break Ampuls ...
Insulux Glass Blocks ... Laboratory
Glassware ... Thermometers and Hydro-
meters ... Towel Bars ... Glass Rod and
Tubing ... Chemical Resistant Glass-
ware ... Custom-made Bottles ...
Pressed Glassware ... Clinical Glassware



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...We invite you to share the experience and facilities we have developed over the past 100 years as converters and distributors of all types of

Paperboard for Set-up & Folding Boxes

To you this will mean "something extra"—in better products, better service and greater profit...and you will enjoy that feeling of security you get when dealing with "the first name" in the paperboard field.

You can rely upon **BUTTERFIELD-BARRY** to extend every effort to solve your paperboard problems and give you "something extra."



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A Century of Progress in Paperboard for Packaging and Merchandising

*Plants
and people*

demand for packaging machinery in that area. **E. J. Evans** has been appointed as a sales and service engineer, with offices in Dallas and his district headquarters in Atlanta. **Bernard King** has been transferred to Chicago as service engineer.

Lynch Corp. has opened a Canadian Div. under the management of **W. J. Faymonville**, at 389 Church St., Toronto.

Charles A. Higgins has resigned as chairman of the board and as a member of the finance committee of **Hercules Powder Co.**, Wilmington, Del. Mr. Higgins remains as a member of the board. **Anson B. Nixon** succeeds Mr. Higgins as board chairman, resigning as a company vice president to accept the post. **Albert E. Forster**, president of Hercules, was elected a member of the finance committee to fill the vacancy left by Mr. Higgins.

A plan to promote use of Pliofilm-lined paper bags for coffee and other products has been undertaken by the **Goodyear Tire & Rubber Co.**, Akron, Ohio, **American Bag & Paper Corp.**, Philadelphia, Pa., and **B. C. Betner Co.**, Devon, Pa. Pliofilm-lined paper bags are recommended for such products as powdered chocolate, dog food, soap powders, bakery products, spices, chemicals, prepared mixes and enriched soils and fertilizers. Details of the plan were worked out at a meeting attended by **Gene Pavitt**, general sales manager of American Bag & Paper Corp.; **G. S. Haney** of B. C. Betner Co.; and district managers and sales personnel of Goodyear's Films, Foams & Flooring Div.

National Container Corp., New York, has entered into a long-term lease covering a large tract of land and buildings formerly owned by **American Car & Foundry Co.** at Madison, Ill.

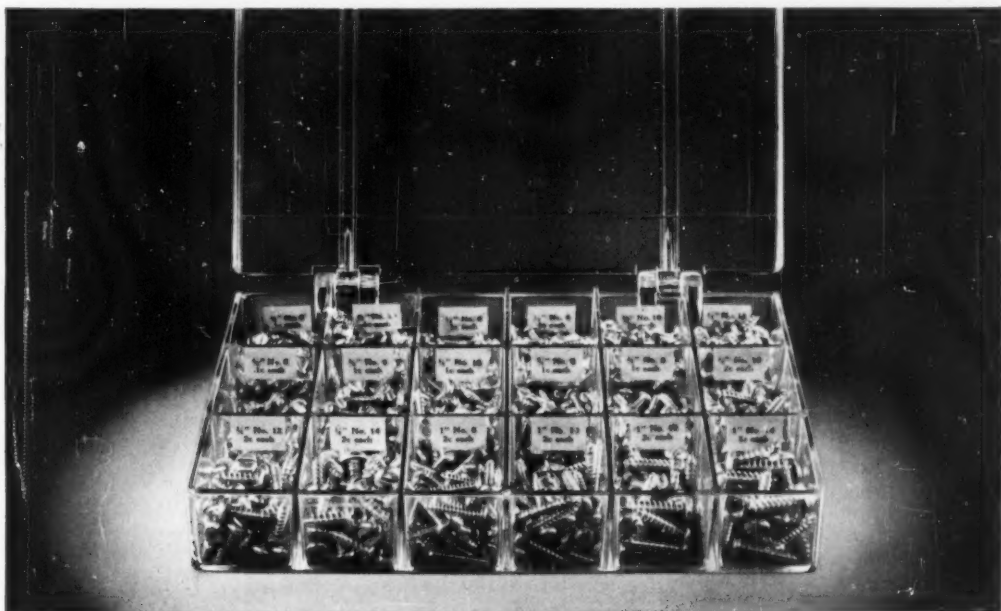
Fort Orange Paper Co., Castleton-on-Hudson, N. Y., has elected the following officers: **Robert P. Jones**, vice president in charge of sales; **Lorenz W. Peter**, vice president, to continue as plant manager; **Jay E. Paul**, comptroller, to assume office management; **Marshall S. Hancock**, general superintendent; **Robert Van Beusichem**, assistant purchasing agent. **Robert S. Harris**, senior vice president and secretary of the company, has relinquished carton sales responsibility.

Announcement has been made of the formation of **Federal Chemical Corp.**, 210 Wythe Ave., Brooklyn, to supply the plastisol and organisol fields. Plant and technical facilities will be at the main



SMALL PARTS "SHOW CASE" OF STYRON PERFORMS DOUBLE DUTY

Small parts easier to use on the production line, easier to sell
on the "purchasing line," in these crystal-clear utility boxes



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Please send me your latest catalog featuring STYRON
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Product to be packaged _____

Here is a versatile, sturdy container made of Styron® that is being used on manufacturers' production lines for small parts assemblies. It makes possible a quick visual inventory of the quantities of nuts, bolts, screws and washers and segregates sizes and types.

You'll find the same containers attracting and selling customers at the point of purchase in hardware stores throughout the country. Hardware buyers *do* prefer attractively, conveniently packaged goods.

It is possible that your container needs may be served better by lightweight Styron that protects against moisture, handling and breakage.

Dow offers a complete Styron Packaging Advisory Service. If there is a stock size plastics container made of Styron that will meet your requirements, Dow will put you in contact with the molder that produces it. Write, specifying your package details such as size, shape, tight seal, type of closure, color, etc. THE DOW CHEMICAL COMPANY, *Plastics Department, PL 1430, Midland, Michigan.*

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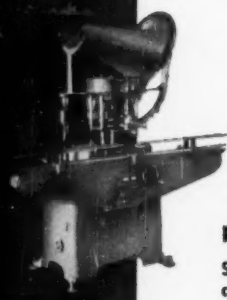
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A MODEL FOR EVERY PURPOSE . . .

A SPEED FOR EVERY NEED!

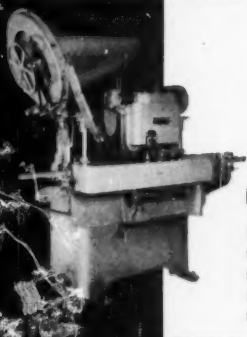
Capacity up
to 60 per
minute.



RESINA

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automatic screw capper.

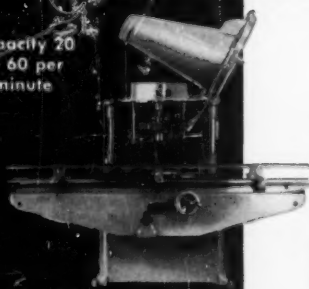
Flexible
Fast
Fully
Automatic



RESINA

High speed, straight line
screw capper. Rated for
speeds up to 300 per
minute depending on
size of container.

Capacity 20
to 60 per
minute



RESINA

Automatic innerseal ma-
chine for selecting and
applying standard inner-
seals to various types
and sizes of tin cans as
commonly used in the oil
industry.

Other models available.
Write for descriptive
literature.

Agents in principal cities through-
out the United States and Canada

RESINA AUTOMATIC MACHINERY CO., INC.

BROOKLYN 31, N. Y.

Plants and people

plant in Brooklyn and at the factory of its affiliated company, Adex Mfg. Co., Baltimore, Md. Officers of the new company are: Philip M. Liner, president; Arthur Mayer, vice president; Mortimer E. Stern, secretary and treasurer; and Samuel W. Strickman, general manager.

Gaylor Container Corp. has announced the retirement of Cecil E. Taylor, vice president in charge of the Eastern Div. He had been with the firm 27 years.

Jules A. S. Wiebel has been appointed manager of the New York office, where he was formerly sales manager. James A. Talboys has been transferred from the Detroit sales office to become manager of the Jersey City plant. Assistant manager at Jersey City will be Charles L. Mueller.

J. Carlton Bagnall, former president of Swank, Inc., has been appointed vice president in charge of sales of the Farrington Mfg. Co., Boston, makers of jewel cases and display packages. Laurence S. Bitner, who resigned the Farrington sales post last Spring, will continue with the company as a vice president and board member.



J. C. Bagnall

Charles P. Ward, Jr., recently released from the Air Force, is back with the Fulton Bag & Cotton Mills, Atlanta, Ga.

American Can Co., New York, has awarded a contract for the construction of a new fibre milk container plant at Needham, Mass., scheduled for completion in July of next year.

The Dow Chemical Co., Midland, Mich., has named Thomas M. Gow supervisor of plastics sales for the Cleveland area. M. H. P. Morand succeeds Mr. Gow as assistant to the head of the coating sales section at Midland. William I. Wilson has been appointed a coatings salesman for Dow and will work out of the Chicago office. Jack C. Baumgartner, also appointed a coatings salesman, will work out of St. Louis.

Chippewa Plastics, Inc., Chippewa Falls, Wis., has appointed Roy Carson as sales manager.

Fibreboard Products, Inc., San Francisco, has appointed H. H. Robbins as general sales manager of Fibreboard Products (Eastern Div.) Inc., a wholly owned sub-

Packaging problems?

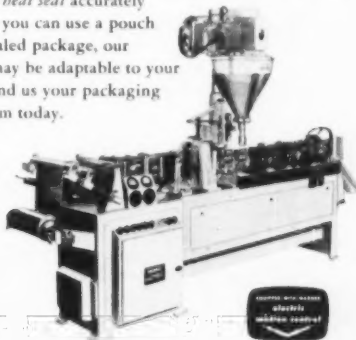
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Colorful, individual packages which effectively display your product can be made automatically and economically on Bartelt Packaging Machines. Bartelt Packagers *make the bag* from a roll of paper, film, or foil; *fill* by count, volume, or special feeder; and *heat seal* accurately and safely. If you can use a pouch style, heat-sealed package, our machines may be adaptable to your needs. Send us your packaging problem today.



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Quality products command better prices! You get better color, better taste . . . and more uniform quality with this money-saving, time-saving unit that will *pasteurize, hold and cool* products packaged in jars, bottles and cans, and which are processed—due to their nature—in their final containers. Remember . . . pasteurized products are "profit" products! Get the facts.

If you pack **PICKLES, JAMS, JELLIES, JUICES** and similar products, send for **FREE** bulletin. Tells how you can improve quality, taste and color . . . with controlled cooling.

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YOU CAN LEARN

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New, unusual, refined, modernized products, equipment and materials

Foremost industrial packaging and materials handling men

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National Packaging and Materials Handling Show
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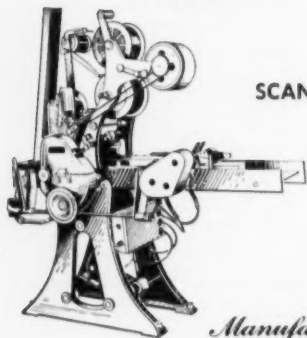
by **SCANDIA**
MACHINERY



BOOST SALES AND INFLUENCE BUYERS

In this era of Super-Market merchandising, makers of popular priced items such as candy, chewing gum, etc., are finding Scandia's multiple-pack automatic wrapping machines to be a tremendous SALES BOOSTER.

The Nestle Company, Inc., have successfully used Scandia high speed wrappers to present six of their famous chocolate bars wrapped as a single unit.



SCANDIA machines ---

- ... costs less than you think
- ... all rotary—continuous design
- ... opening-tape, electric eye, etc.
- adjustable for different sizes

SCANDIA

Manufacturers of Better Packaging Machinery

• 500 BELLEVILLE TURNPIKE • NORTH ARLINGTON, N. J. •



BUNDLING • BANDING • MULTIPLE WRAPPING • STAMPING • HIGH SPEED WRAPPING
MANUFACTURED UNDER BRONANDER PATENTS.

Plants and people

sidary. Mr. Robbins will headquarter in Philadelphia. **Ralph S. Lau** will succeed Mr. Robbins as Oregon district sales manager in Portland.

A new firm of consultants, **Decorating Process, Inc.**, has opened offices at Regester and Aliceanna Sts., Baltimore 31, Md., to service industry on cold color decorating processes for bottles, cans and drums. **George Fuld** is president of the new firm.

Coronet Products Corp., printing-ink company, has been formed with offices at 114-116 N. Franklin St., Philadelphia, Pa. Officers of the new organization are: **James J. Campbell**, president; **Andrew Gunthner**, vice president; and **John C. Brower, Jr.**, secretary-treasurer.

The Comet Envelope & Paper Co., Inc., New York, has formed a new poultry bag division to handle sales of its new line of polyethylene poultry bags.

The Cryovac Div. of **Dewey & Almy Chemical Co.**, Cambridge, Mass., has appointed **John Copeland** as sales representative covering Texas and Louisiana. Mr. Copeland will handle sales of Cry-O-Rap plastic bags and Cryovac packaging equipment.

Robert Gair Co., Inc., New York, manufacturers of folding cartons, paperboard and shipping containers, has appointed **George A. Bowen, Jr.** as assistant advertising manager.



Mr. Bowen

Braun-Hobar Corp., Milwaukee, Wis., manufacturer of molded caps and other packaging specialties, has purchased **Kampa Mfg. Co.**, plastics manufacturer. Braun-Hobar headquarters will be moved to the former Kampa plant at 12,132 W. Capitol Dr., Milwaukee.

The first public demonstration of the broad application of melamine resin to paper was held recently in New York by **American Cyanamid Co.'s Paper Chemicals Dept.** in conjunction with more than 20 mills and paper-goods manufacturers. The paper products shown demonstrated increased strength by the addition of a melamine resin (Melostrength Resin). Molded paper apple-packing trays were among the items displayed. Among the

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MANHASSET DUAL-PROCESS PRINTER

New high-speed web-printing press interchangeable for both flexographic and offset-gravure processes

Print — tint — lacquer — coat on cellophane, foil, paper, glassine and boxboard alike with Manhasset's DUAL-PROCESS press. Get top-quality line and fine-screen reproduction — single or multi-color — on wraps, bags, labels, cartons, counter rolls, decorative specialties... combined with precision rewinding, slitting, sheeting, die-cutting or other in-line operations. Write — wire — phone for more details.



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WHATEVER THE JOB...

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REDCORE GUMMED TAPE DOES IT BETTER

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IMPORTANCE**
To
**PRINTERS
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Would you like unusual fineness of detail, and brilliant colors like you usually get in your printed matter? Then try ADP-rite inks.

You'll be amazed at the difference — and the added fact that you can't get any better.

With adequate drying your blocking problems will be over too, especially the blocking that shows up on you a week or so after the job has been printed.

We shall be pleased to furnish you with press trial quantities of ADP inks in either process or non-process types.

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They are probably all tempting to you, and they all have one thing in common — they all have been wrapped by *heat seal methods*.

The economies and advantages of heat seal methods are well known. ARCCO offers paper, film and foil converters, a commercially proven line of specialty heat seal coatings and adhesives. They are available in emulsion, solution, and hot melt types and can generally be applied with your present equipment.

They can be engineered to possess various characteristics to suit your particular requirements. An ARCCO engineer will be happy to work with you. Write for data sheets.

ARCCO 1044-29A — Universal Heat Seal Coatings for Glassine, Paper, Aluminum Foil and Cellulose Acetate. Data Sheet C-66.

ARCCO 1044-31 — Heat Seal Coating for Candy Bar Wraps. Data Sheet C-66.

ARCCO 716-6 — Heat Seal Spot Coating for Waxed Glassine. Data Sheet C-66.

FOILAC 1261-12C — (Clear) Solution Coatings for Metal Foils. Data Sheet C-61-R.

ARCCO 1044-27A — **ARCCO 1044-27B** — Heat Seal Greaseproof Resin Emulsion Coatings. Data Sheet A-43.

ARWAX 717-46B — Hot Melt — paraffin wax additive for improved heat seal and improved water-vapor resistance. Data Sheet C-71.



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Plants and people

tests demonstrating the wet-strength characteristics of the treated paper were freezer-pack paper that had been boiled for 72 hrs. without disintegration, a 1-in.-wide strip of paper in water holding up a concrete block and a woven paper fabric so strong that it could be scoured with a steel brush. Other qualities claimed for the material are freedom from linting, dimensional stability for printing, inhibition of curling tendencies. Among the paper mills and paper-goods manufacturers participating in the program are International Paper Co., Marathon Corp., Mosinee Paper Mills Co., Rhinelander Paper Co., Riegel Paper Corp., St. Regis Paper Co. and Eastman Kodak Co.

John D. Benedito has been appointed as assistant general sales manager of Bakelite Co., Div. of Union Carbide & Carbon Corp., New York. Mr. Benedito was previously manager of the Molding & Extrusion Materials Dept.



J. D. Benedito

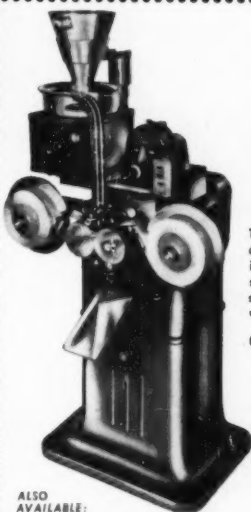
The Brockway Glass Co., Brockway, Pa., has appointed R. Allen Guthrie to the Beverage and Liquor Div. of its Sales Dept. Mr. Guthrie will assist the division manager, E. M. Tyndall. G. R. Hollen has joined the staff of Brockway's General Line Div.

American Viscose Corp., Philadelphia, Pa., has transferred John Adrian, district supervisor in the New York sales office, to the converter sales division, Chicago. Lewis Morris, in the converter sales division in Chicago for the last year, has been transferred to Cleveland. Bernard J. Reis has been assigned to the Dallas branch office.

Sorg Paper Co., Middletown, Ohio, has appointed Frank J. Hoffman as product development specialist, converted products, in the sales division's Product Development Dept.

Christopher D. Norton has been elected vice president of Acme Steel International Co. and Acme Steel Overseas Co., subsidiaries of Acme Steel Co., Chicago, serving Acme's foreign markets. Mr. Norton will direct further expansion of Acme's foreign sales operations.

Walter F. Carter has been appointed assistant general superintendent of Acme's Riverdale plant, Riverdale, Ill. Mr. Carter also continues as director of technical



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A VERSATILE, LOW COST MACHINE FOR
PACKAGING PRACTICALLY ANY SMALL ITEM!

The WRAP-ADE UNIT PACKAGER performs an entire cycle of packaging operations—including feeding, filling, forming and sealing practically every type of heat sealing material. It has been built on the simplest possible principles conducive to high speed packaging, versatility, and low upkeep costs.

CHECK THESE OUTSTANDING FEATURES:

- **FEEDING MECHANISMS** available for all types of products: conveyor, magazine, rotary table, volumetric filler, automatic hoppers.
- **SIZES:** Can be designed for any products up to 3" x 7".
- **CAPACITY:** Small items such as tablets—300-350 per minute, units the size of a bottle cap—125 per minute (single row), powder pockets—3" x 3"—70 per minute (single row). *Duplex feed, where practical, will double speed.
- Quick adjustment for multiple cut-off, no gear change necessary.
- May be equipped to print markings in register.

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Manufacturers of Packaging Machinery for over 20 yrs.
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The Boss finally saw the light—no
more unknown tapes for us—he bought
Trojan IMPERIAL Gummed Tape



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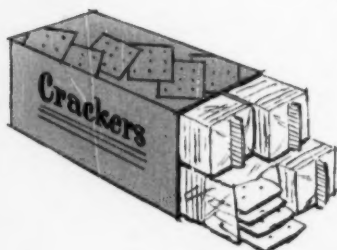
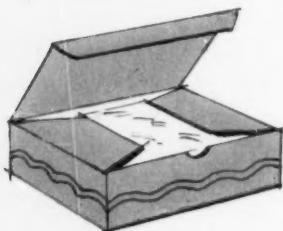
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COATED or WAXED

Glassine

THE PREFERRED
INNERWRAP

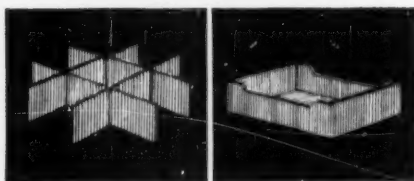
FOR BEST PROTECTION



Fresh . . . oven-crisp crackers require the protection of coated or waxed, moisture-resistant Rhinelander Glassine to keep them that way. This functional paper, which is also greaseproof, is a natural for innerwrapping crackers. It offers excellent dead folding qualities effectively sealing off air and moisture and delivering crackers to stay fresh down to the very last one.

In addition, Rhinelander Glassine offers unusual economies both in original cost and in ease of multiple packaging.

Waxed grades are available through leading converters.



Rhinelander Glassine and Greaseproof are also ideal for corrugated trays and dividers

Write for complete information and samples. (Please state application)



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Plants and people

services. Acme Steel Products Div. has appointed the following as product sales managers: Edward C. Evans, unit-load; C. Robert Lammers, steel strap; and John H. Prout, stitching.

Specialty Papers Co., Dayton, Ohio, has elected Wallace Whittaker chairman of the board of directors. William P. Patterson was re-elected president and also named secretary. The company plans to add cellophane and aluminum foil to its line of flexible material.

Whitney J. Wright has been named a director of the Muirson Label Co., Inc., San Jose, Calif. Mr. Wright will remain as a vice president of the corporation in charge of its Western Div.

Kehr Paper Products Co., Philadelphia, has changed the company name to Kehr Products Co. The new signature design emphasizes the firm's expanded line of flexible packaging.

The Hayssen Mfg. Co., Sheboygan, Wis., has appointed Francoeur & Co., Inc., New York, as export representative for Hayssen automatic wrapping machines and Hayssen automatic bread slicing and wrapping machines. The Francoeur Co. territory covers all Latin America and includes the West Indies, Bermuda and Bahamas.

A. D. Bowman, Inc., Waterbury, Conn., has been appointed New England sales representative for Schroeder Machines Corp., Syracuse, N. Y.

Paper Machinery & Research, Inc., Roselle, N. J., has appointed William D. Donohue sales manager. Jack Faulks has been appointed to the company's sales department.

Robert Anson Sherman Bloomer, co-founder of Bloomer Bros. Co., Newark, N. Y., manufacturers of paper boxes and cartons, died on June 21 at the age of 82. Mr. Bloomer and his brother, the late Charles T. Bloomer, bought the American Package Co. in 1899 and gave the firm its present name.

Stanley J. Klein, president of the Empire Box Corp., Garfield, N. J., died on Sunday, June 14, after a long illness. Mr. Klein was 50 years old. He was a pioneer in the development of the soft-drink carry-out carton and was recognized as a leader in the folding-carton industry.



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CONVERTERS • FABRICATORS • LAMINATORS: ROLLS, SHEETS, BAGS

AUGUST 1953

157

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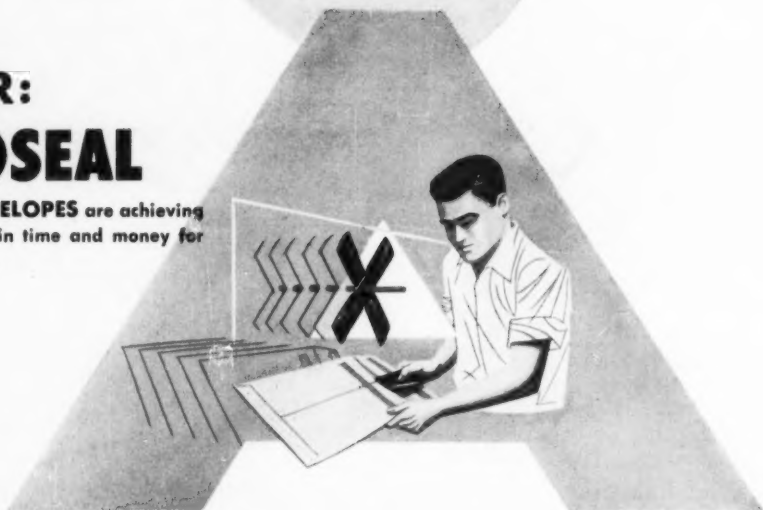
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It's easy to streamline your entire packaging operation (and your packages)! Specify Self-Seal, the only envelope that seals tight at a touch . . . without moisture, string, staples, clasps . . . or other costly, time consuming operations. All sizes, all shapes for everything from tools to toys, payrolls to paint brushes, and girdles to gaskets. There's even a style for bulky first class mail. Self-Seal, the dry seal envelope, solves really tough packaging and mailing problems. Let us show you what these modern envelopes can do for you. Write today for samples.

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World's Largest Manufacturer of Envelopes — 14 Plants from Coast to Coast



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Delivery of automotive replacement parts is efficiently handled by SELF-SEAL dry seal envelopes for one of America's giant manufacturers.

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EQUIPMENT • SUPPLIES • SERVICES

PYROXYLIN PAPERS. Folder contains seventeen sample sheets of Artocote pyroxylin pastel packaging papers and boards. Weights include 60 pound, gummed and ungummed, and 7, 10, and 15 point. Artocote Papers, Inc. (H-351)

FILLING MACHINES. Comprehensive folder illustrates and describes thirteen Stokes & Smith machines for filling all sorts of products from pastes and granular substances to powders. Single and duplex models. Stokes & Smith Co. (H-352)

CARTON FORMER. Data on the "Tray-Lock" Model A and Model B for rapidly setting up strong, neat looking baked goods trays from inexpensive die cut blanks. Package Machinery Co. (H-353)

"CORRUGATIONS." House organ contains article which illustrate how one manufacturer of major appliances packages his products in corrugated containers. Other items of interest to packagers. Stone Container Corp. (H-354)

LAMINATING ADHESIVES. Specifications and application information on several solvent-type adhesives for laminating plastic films, paper, foil, cellophane, and fabric. Rubber & Asbestos Corp. (H-355)

RIGID PLASTIC CONTAINERS. Catalog contains illustrations, dimensions, color selections, and suggested uses for nearly 200 stock plastic boxes which are molded of "Styron." Lists sources where these items may be obtained. The Dow Chemical Co. (H-356)

RINSE AND CLEANER FOR GLASSWARE. Schematic diagrams, information, and specifications of the U. S. "Rotary" rinser and cleaner for handling any size or shape of bottle or jar from miniatures to gallons. U. S. Bottlers Machinery Co. (H-357)

"PLY-VENEER" FOR BOXES AND CONTAINERS. Bulletin explains the properties and advantages of "Ply-Veneer," a high strength board for panel stock, boxes, and containers. "Ply-Veneer" consists of a Douglas fir veneer core and kraft containerboard facing. Weyerhaeuser Timber Co. (H-358)

SPECIFYING CORRUGATED BOXES. Booklet gives hints on factors to be considered when establishing specifications for corrugated shipping containers. The Hinde & Dauch Paper Co. (H-359)

GUMMED TAPE. Folder explains seven extra advantages over other materials when gummed tape is used for sealing shipping and other containers. Gummed Industries Association, Inc. (H-360)

COFFEE PACKAGING MACHINES. Data on ten fully-automatic machines for packing and sealing coffee into bags ranging in size from 2 ounces to 3 pounds, at speeds from 25 to 70 packages per minute. Fr. Hesser. (H-361)

NON-STAINING PROTECTIVE PAPER. Sample sheets of non-staining "Thilco Tuf" duplex reinforced protective wrapper for all types of heavy packaging assignments, such as covering upholstered furniture, protecting polished wood, metal, and stone surfaces, and wrapping textiles, carpeting and the like. Thilmany Pulp & Paper Co. (H-362)

TRANSPARENT PLASTIC CONTAINERS. Folder contains data on the dimensions, sizes, closure styles, and products which may be packaged in "Clearsite" rigid or flexible plastic containers. Cellulastic Corp. (H-363)

VOLUMETRIC FILLER. Bulletin covers the features and operations of bench and floor "Whiz-Packer" volumetric filling machines for free flowing products. Frazier & Son. (H-364)

PACKAGE IMPRINTING. Brochure shows how various manufacturers imprint supplementary package information automatically with the Gottscho "Markocoder." Adolph Gottscho, Inc. (H-365)

USING "CEL-O-SEAL" BANDS. Handbook tells users how to store, care for, and use Du Pont "Cel-O-Seal" cellulose bands on their bottles. Information on hand and machine application. E. I. du Pont de Nemours & Co., Inc. (H-366)

"PLASTICS PACKAGER." First issue of Monsanto's new publication for packagers is devoted to interesting container applications of "Lustrex" styrene and "Vuepak" acetate. Data on stock packages. Monsanto Chemical Co. (H-367)

AEROSOL VALVES. Description of the construction and features of Schrader aerosol

units with "Freedom" caps and tamper-proof locking tabs. A. Schrader's Son. (H-368)

LABELING ROUND CONTAINERS. Technical service bulletin illustrates all current machines for automatic or semi-automatic labeling of glass jars, bottles, tin cans, and fiber-bodied cans. Lists Paisley labeling adhesives and labeling methods. Paisley Products, Inc. (H-369)

PACKAGING MACHINES. Brief specifications of 39 "MFM" semi- and fully-automatic machines for performing a wide range of functions including tube filling and closing, tablet packaging, cartoning, cellophane wrapping, powder filling, counting, unit packaging, and bag filling. Industrie-Werke Karlsruhe. (H-370)

RUBBERIZED FIBER CUSHIONING. Bulletin covers the features and advantages of "Co-Ro-Tex," a new rubberized fiber cushioning material which meets specifications MIL-P-6064A and MIL-C-7709. It is resilient, uniform, dust-free, non-abrasive, and moisture and fungus-resistant. Greenwood Packaging Supply Co. (H-371)

EXPORT PACKING SERVICE. Data in the facilities and type work done by this company for the armed services, electronics manufacturers, government contractors, common carriers, and others who have need of climate-proof packaging. Cargo Packers, Inc. (H-372)

FACTS FOR CANNERS ABOUT FREIGHT DAMAGE. Report of a survey on freight damage lists the basic causes, explains the losses involved, and recommends packing, sealing, and loading practices approved by outstanding authorities. National Container Corp. (H-373)

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EQUIPMENT • SUPPLIES • SERVICES

CLUTCHES AND BRAKES FOR PACKAGING EQUIPMENT. Information on the use of Warner electric clutches and brakes on packaging machines for smoother and faster starting and stopping, reduction of vibration and maintenance, and improved speed control. Warner Electric Brake and Clutch Co. (H-374)

AUTOMATIC FILLING SCALE. Bulletin and specification sheet on the Thayer Model 600G fully-automatic filling scale for close tolerance filling and bagging of any powdered products weighing from 25 to 200 pounds. Thayer Scale & Engineering Corp. (H-375)

V.P.I. ENVELOPES FOR METALS Sample and descriptive bulletin on "DryVapor Pack-Velopes," protective envelopes for steel and aluminum pieces, which prevent rust and corrosion without use of greases and goos. Berlin & Jones Co. (H-376)

ELECTRIC TAPE DISPENSER. Information on a new electrically operated model of the "National Tay-Per." Delivers a predetermined length of moistened gummed tape after a foot switch is tripped. Nashua Corp. (H-377)

VINYL ACETATE POLYMERS AND COPOLYMERS. Information about emulsions and solutions which can be used to make heat-sealing, gloss, and protective coatings, binders, sizes, and adhesives for paper, foil, plastic sheeting, and other difficult surfaces. National Starch Products, Inc. (H-378)

HANDLING AND CHECKING AEROSOL CONTAINERS. Bulletin describes the production of aerosol propellant containers for various products. Tells how Island equipment

can be used in unscrambling, heat and leak testing, and discharge of filled containers. Island Equipment Corp. (H-379)

PACKAGING MANUAL FOR SELF-SERVICE MEATS. Complete handbook on the subject covers the dollars and cents aspect of prepackaging meats, the technique for using "Plofilm" properly for various cuts, film recommendations, merchandising suggestions, efficient packing room layouts, and other pertinent details. The Goodyear Tire & Rubber Co. (H-380)

DOUBLE-CREPED KRAFT WRAPPING. Data on the various types of "Cindus," a double-creped kraft paper available in coated, impregnated, and other varieties for wrapping, embossing, laminating, reinforcing, and printing. Cincinnati Industries, Inc. (H-381)

PRINTING ON POLYETHYLENE. Information bulletin discusses the problems of printing on polyethylene and outlines the methods used by various printers. Chester Packaging Products Corp. (H-382)

ARCULATE WIRE STITCHING. Bulletin explains how a wire stitching machine puts an arc in a cross-section of flat wire and then drives and clinches the stitch at high speed. This arcuate method cuts wire costs, reduces machine down time and makes neater looking boxes. Acme Stitch Co. (H-383)

FIBROUS GLASS CUSHIONING MATERIAL. Details on the use and performance characteristics of "Vibraglass" cushioning material which is available in sheets, pads, molded pads, and cushion cases for protecting equipment from shock and vibration. Vibradamp Corp. (H-384)

GUMMED TAPE. Sample strips of "Sterling Supreme" and "Trojan Imperial" gummed tapes, plus folder on "Jet Tape" which features a nylon string down the middle for easy opening of cartons. The Gummed Products Co. (H-385)

BUTT SPLICER FOR ROLL FED PRESS EQUIPMENT. Specification bulletin explains the advantages and operation of the Champlain butt splicer which splices rolls at speeds to 300 feet per minute with minimum waste of time and paper stock. Champlain Co., Inc. (H-386)

DRUM HANDLING EQUIPMENT. Bulletin illustrates a large assortment of drum cradles, trucks, rotators, slings, and faucets to facilitate the use and handling of fiber and metal drums of all sizes up to 110 gallons. Morse Manufacturing Co., Inc. (H-387)

HANDLING BULK MATERIALS IN BAGS. Booklet explains the advantages and economies of using industrial lift trucks for handling palletized loads of bags and heavy bulk materials. The Elwell Parker Electric Co. (H-388)

EXPORT PACKING IN NAILED WOODEN CONTAINERS. Booklet analyzes nailed containers in terms of protection required for various types of loads. Examines nailing, strapping, bracing, and marking procedures, and how specifications are determined. National Wooden Box Association. (H-389)

ROLL LEAF MARKING MACHINES. Data on two air-operated "Kensol" hot leaf marking machines for making metallic and color imprints on items made of paper, cloth, plastics, wood, and leather. Olsenmark Corp. (H-390)

"VARIGRAPH" LETTERING INSTRUMENT. Details about a device which enables anyone to produce professional-looking lettering at high speed. Illustrations of the wide range of available type styles and sizes. The Varigraph Co., Inc. (H-391)

AUTOMATIC COUNTING AND IMPRINTING MACHINE. Brochure gives operating features and details on the new Pitney-Bowes "Tickometer" which automatically counts and imprints paper forms such as labels, checks, tickets, etc. Pitney-Bowes, Inc. (H-392)

SEALING WITH HIGH TENSILE TAPE. Folder illustrates the most effective techniques for sealing cartons with high tensile strength tape. Diagrams show how to obtain the utmost in sealing and reinforcement. Polyken Industrial Tape, Dept. of Bauer & Black. (H-393)

"FIBRO" CUSHIONED PADS. Folder with samples of package padding which are wrapped in creped and waxed kraft, and in waterproof paper. Meet various government packaging specifications. Fibrole Illinois Corp. (H-394)

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For your information

Closing date for the **Package Designers Council's 1953 Awards** entries is Aug. 31. The competition has been divided into eight categories: (1) Coordinated Packaging Program, (2) Grocery Self-Service Package, (3) Drug Store Self-Service Package, (4) Self-Service Cosmetic Package, (5) Miscellaneous Self-Service Package, (6) Department Store Self-Service Package, (7) Redesign Project—Old and New, (8) New Package for a New Product. For top honors the best design in the show, chosen from the 1953 PDC award winners, will be selected by the judges to receive the Irwin D. Wolf Award. Entry blanks may be had from the Package Designers Council, 118 E. 40 St., New York 16. Awards will be made at a luncheon to be held at the Park Lane Hotel, New York, on Oct. 21. Accepted entries will be exhibited in the Versailles Room of the Park Lane on Oct. 21 and 22. A selected group of packages, including the award winners, will be published in a book entitled "P.D.C. Annual of American Package Design."

Clifford C. Vatter of Bradley & Gilbert Co., has been elected president of the



C. C. Vatter

National Paper Box Mfrs. Assn. Other new officers are: **Murray S. Moore** of Consolidated Paper Box Co., vice president; **F. William Koehl, Jr.**, of The William Koehl Co., treasurer; **Gustav L. Nordstrom**, executive secretary. The newly elected

directors include: **William H. Albrecht**, W. H. Albrecht Co.; **Donald B. Fobes**, Paper Package Co.; **Arthur C. Friedel**, J. F. Friedel Paper Box Co.; **Ralph L. Harden**, Mason Box Co.; **T. Harry Long**, Newark Paper Box Co.; **Dean C. Mathews**, Quality Paper Box Co.; **William C. Milson**, F. N. Burt Co., Inc.; **Douglas T. Neale**, Edwin J. Schoettle Co.; **Louis Neiman**, Quality Paper Box Co.; **Malcolm A. Peak**, Old Dominion Box Co., Inc.; **Lawrence S. Pollock**, Pollock Paper Corp.; **Ermin R. Ruf**, Wayne Paper Box & Printing Corp.; **Max L. Schwartz**, United Paper Box Co.; **Walter H. Taylor**, Pacific Paper Box Co.; **Wallace Ungemach**, Wallace Paper Box Corp.; **Claude W. Waters**, Cardinal Boxes, Inc.; **W. L. Wheeler**, Jacksonville Ginter Box Co., Inc.; and **Charles H. Woessner** of Boxcraft Paper Box Co.

The technical short course training program sponsored by the **Society of Industrial Packaging and Materials Handling**

Engineers in cooperation with the Massachusetts Institute of Technology will be chairmaned this year by **John W. Kraus**, supervisor of quality control and packaging engineering for the accessories division of Thompson Products, Inc., Cleveland. The course will be presented in Boston the week of Oct. 19 in conjunction with the eighth annual SIPMHE-sponsored



J. W. Kraus

Industrial Packaging and Materials Handling Exposition and the **National Protective Packaging and Materials Handling Competition**. The four-day course, including a total of 17 sessions, will include a complete and special series of lectures and training on "Packaging Fundamentals" especially designed for packing and shipping overseers and supervisors. There will also be an advanced series of lectures for packaging and materials-handling engineers, as well as general case-history sessions for top management. Registration for the series will be limited to 100 persons and must be made for the entire course.

Demand for exhibit space at the exposition, to be held in the Mechanics Bldg., has been so great that the original show area has been expanded to include 30,000 more sq. ft. of space. Chairman of the exposition is **Thomas W. Regan**, vice president of the General Box Co. Plans are being made to supplement the regular stationary exhibits with a series of "live" demonstrations of equipment and materials.

Ray A. Mantz, supervisor of Materials Handling and Product Protection Laboratory of Manufacturing Research at International Harvester Co., has been named chairman of the competition. Entries are expected to exceed last year's record-breaking number. The three top winners in each of the seven groups in the competition will be displayed with special prominence in a "Winners' Circle" at the exposition. Awards will be distributed at the SIPMHE annual banquet on Oct. 21 at the Somerset Hotel. Two special awards will also be presented—the Harold Jackson Award and the Irving J. Stoller Award.

The advisory committee on packaging curriculum at **Michigan State College** recently held its first annual meeting on the East Lansing campus. Revised curriculum as proposed by the college, the problem of making the opportunities in packaging known to young people and

the problem of equipping a laboratory for instructional purposes were among the topics discussed. The college was congratulated for its foresightedness in undertaking the establishment of this new four-year curriculum, the first of its kind in the country.

The **Shellmar Products Corp.** was presented with the **National Advertising Agency Network's Award of Merit** in the 1953 Creative Competition for Physical Appearance of Space Advertising which appeared in **MODERN PACKAGING**. The award was presented at the 22nd Annual Management Conference of the Network, Colorado Springs, Col. A board of judges, under the direction of **Prof. Lloyd D. Herrold** of Northwestern University, selected winners from 299 entries covering the advertising and public relations programs of nationally prominent concerns.

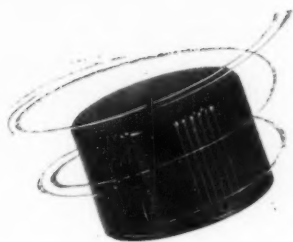
The offices of the **Technical Assn. of the Pulp & Paper Industry** (including **TAPPI** magazine) are now located at 155 E. 44 St., New York 17. Telephone number is Murray Hill 2-8313.

To aid paper and paperboard mills in re-using boxes as pulp **The Fibre Box Assn.**, in cooperation with the **National Paperboard Assn.** and the **Waste Paper Utilization Council**, has adopted a uniform system of marking boxes consisting of a "stop" street design with a letter designating the type of material of which the box is made. "A" represents asphalt, "S" stands for sulphur and "P" for polyethylene. The Fibre Box Assn. recommends that this seal be printed on the top and bottom flaps of shipping cases, scored sheets, pads and other products to overcome technical re-use problems at mills.

An increase of almost 100% in floor area and 50% in number of exhibitors has been forecast for the **Third Annual Exposition of The Produce Prepackaging Assn.**, to be

What's doing

- Aug. 10-13—**International Apple Assn.**, annual meeting, Chicago.
- Aug. 23-26—**National Automatic Merchandising Assn.**, Trade Show, Conrad Hilton, Chicago.
- Aug. 24-28—**New York Gift Show**, Statler and New Yorker, New York.
- Aug. 31-Sept. 5—**National Dietary Foods Assn.**, Morrison, Chicago.
- Sept. 13-16—**National Frozen Food Locker Institute**, Morrison Hotel, Chicago.



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To run your capping machines faster—without increasing breakage or downtime—use Armstrong's "Hi-Tork" Plastic Caps. They have the extra strength needed to take the punishing torque and impact of modern, high-speed capping equipment.

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You can prove the ruggedness of Armstrong's "Hi-Tork" Caps on your own lines. For details, call your nearest Armstrong office or write Armstrong Cork Company, Glass and Closure Division, 5308 Crystal Street, Lancaster, Pennsylvania.

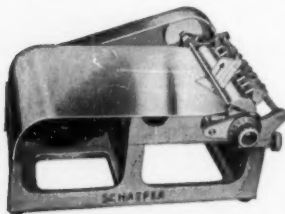


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CANS • PACKAGES**

Whether your labeling needs are short runs or production, Schaefer Labelers can save you approximately 35% labor time. Glue round, square or die-cut labels neatly—no glue ooze at edges. Printing stays clean. Easy to operate, no skilled labor necessary.

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AGENTS IN PRINCIPAL CITIES.

For your information

held in conjunction with the association's **Third Annual Conference** at the Chase Hotel, St. Louis, Mo. Preliminary events will take place on Monday, Oct. 5, with the Exposition opening officially on Oct. 6 and running through Thursday, Oct. 8.

Dr. Berton S. Clark, scientific director of American Can Co.'s research and technical department, has been named president of the **Institute of Food**



Dr. B. E. Proctor (left) and Dr. B. S. Clark

Technologists succeeding Dr. Bernard E. Proctor, head of Massachusetts Institute of Technology's food technology department. The ceremonies took place in Boston at the annual convention of the professional society of scientists and technologists in the food processing and allied fields.

The program committee for the 21st annual meeting of the **Packaging Machinery Mfrs. Institute**, to be held Sept. 20-23 at Skytop Lodge, Skytop, Pa., will be headed by W. B. Bronander, Jr., of Scandia Mfg. Co. as general meeting chairman. Chairman of the business meeting program is E. A. Oliver of Economic Machinery Co. Entertainment chairman is John B. Wilson, Wright Machinery Co., Sports chairman is G. Diehl Mateer, G. Diehl Mateer Co., and the reception and fellowship chairman is E. J. Abendschein of Chisholm-Ryder Co. Mrs. Edwin H. Schmitz and Mrs. Palmer J. Lathrop will be in charge of women's activities.

The 1953 **Canners Directory**, published by the **National Canners Assn.**, has just come off the press. This 45th annual directory includes a list of canning firms and their addresses as well as plant locations and products packed at each plant. The 250-page Directory lists N.C.A. members, officers, staff, branch offices, directors, administrative council and committee members for 1953, as well as the membership of the **National Food Brokers**



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The priceless ingredient
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FOLDING BOXES and DISPLAYS

Besides inspired creation and economical production, our half century of top-flight merchandising experience permits us to inject into the solving of YOUR problem the priceless ingredient that clinches the sale.

Brooks AND Porter INC.

304 HUDSON STREET, NEW YORK

Assn. and the Canning Machinery & Supplies Assn. Also featured is an over-all commodity index covering 523 different canned products. One free copy of the Directory is furnished to each N.C.A. member firm. Additional copies, at \$1 per copy to members, \$2.50 to non-members, can be ordered from the Information Div., National Canners Assn., 1133 20 St., NW, Washington 6, D. C.

At the recent third annual convention of the **Industrial Bag & Cover Assn., H. C. Davis** of Bemis Bro. Bag Co. was re-elected president and **Stanley Yount** of Southland Paper Converting Co. was re-elected as vice president. New board members are **Alvin A. Abramson**, Central States Paper & Bag Co.; **John Metzberg**, Cromwell Paper Co.; **Edward Look**, The Portco Corp.; **H. M. Hanson**, Kennedy Car Liner & Bag Co., and **Arnold Mills** of Propack, Inc. **Philip O. Deitsch** continues as administrative officer. Interest centered around the association's annual contest for a "form-fitting flexible package for an article not presently packaged in bag or cover form," for which entries will be accepted until Sept. 15. Announcement of the award winners will take place during the association's semi-annual meeting next November in Chicago. Entry blanks are available from the Industrial Bag & Cover Assn., 19 W. 44 St., New York 36.

A course in "Packing and Packaging: Design Techniques and Cost Reduction Studies," covering current packing problems and present day military packing techniques will be offered this fall by New York University's Div. of General Education. **Allyn C. Beardsell** and **Alfred W. Hoffman** of Container Laboratories, Inc., will instruct the class, which will meet on Tuesday evenings. A "Statistical Quality Control Seminar for the Graphic Arts Industries" will also be given on Monday evenings, with **Donald Macaulay** of Paper Quality Control, Inc., as instructor. For information on these and other courses of interest to packagers, write to **Prof. Sidney G. Roth**, N. Y. U. Div. of General Education, 3 Washington Sq. N., New York.

The **Meyercord Co.** won first place in the Annual Awards Competition of the **Lithographic National Assn., Inc.**, for the second straight year. The winning award was a Fawn and Bear subject produced for nursery furniture manufactured by The **Storkline Furniture Co.**, featuring a new three-dimension effect, which the judges cited for unusual realism in a pictorial reproduction.

The **Bakelite Co.**, Div. of Union Carbide & Carbon Corp., has announced a change from the trademark Vinylite to the trademark **Krene** on certain products to avoid confusion between the numerous adapta-



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Will bring you complete details about our expanded mill facilities for producing **GLASSINE** and **GREASEPROOF** papers for your packaging and converting needs.

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BETTER, FASTER, LOW-COST WAY to WRAP REAM PAPER

The Hayssen Wrapping Machine wraps 20 or more packages per minute automatically with one attendant... needs no compressed air... handles practically any type of wrapping material, including kraft paper and special laminations. Wraps and seals packages of envelopes without compressing them. Special Attachments (Electric Eye, labelers, etc.) are available.

In addition to the papers shown here, the Hayssen Wrapping Machine is used for Hammermill Mimeo Bond, Browning Achievement, copy paper by Standard Duplicator Machines Corp., Maxopaque of Howard Paper Mills, Penworthy Filler Paper, Montag's Loose Leaf Filler, and many others.

For highly sensitive papers and high-grade stationery, the Hayssen V-Type Underfold can be incorporated to produce a moisture-proof package. Equipment is also available for accumulating several packages and wrapping them in a bundle automatically.

WRAPS ALMOST ANY SIZE OR SHAPE

Ream Paper, Memo Pads, Tablets, Envelopes, Loose-Leaf Fillers, Office Stationery, Sales Books, Magazines, Books.

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Since 1910, One of the World's Largest Manufacturers of Wrapping Machines

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CANDY • ICE CREAM • DAIRY • MEATS • IRREGULAR SHAPES

WRITE for information... tell us
your wrapping problems—we have
the answer.

For your information

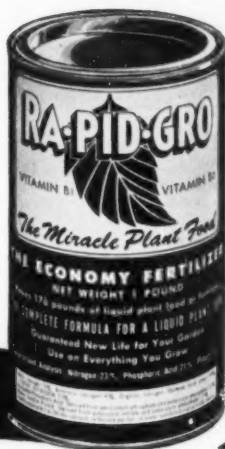
tions of the term "vinyl." Krene will hereafter be used to identify all calendered, plasticized polyvinyl chloride film and sheeting manufactured by Bakelite Co. Bakelite produces Krene film and sheeting, but not finished products made of them. An intensive advertising program to promote the new trademark is planned.

Following its move to the Hotel Statler, New York, for the 1953 Annual Forum which will be held Oct. 12-14, the Packaging Institute will move again in 1954. Next year's Forum will be held at the Hotel Roosevelt, New York, Oct. 25-27.

A Poultry & Egg Marketing School for the packaging industry will be held at the University of Maryland, College Park, Md., Sept. 9-11, sponsored by the U. S. Dept. of Agriculture and several trade organizations. Closing date for registration is Aug. 20. Communications should be addressed to O. F. Johndrew, Jr., Poultry Branch, PMA, USDA, Washington 25, D. C.

The Point-of-Purchase Advertising Institute has announced the following new executive committee for 1953-1954: Walter J. Ash, Consolidated Lithograph Corp., chairman; S. Paul Boochever, Gibraltar Corrugated Paper Co., co-chairman; Ed. K. Whitmore, Oberly & Newell Lithograph Corp.; W. L. Stensgaard, W. L. Stensgaard & Associates, Inc.; Harry Fenster, I. Fenster & Sons; Paul Godell, Arvey Corp.; Wm. Melish Harris, Wm. Melish Harris Associates; J. S. Yarrow, Betts & Betts, Inc.; George Hughes, Kindred MacLean & Co.; John M. Palmer, Palmer Associates; Chester Thomson, Einson-Freeman Co.; Herbert Zipprodt, Zipprodt, Inc.; Stanley Wessel, Stanley Wessel & Co.; W. H. Walters, U. S. Printing & Lithograph Co.; Norton B. Jackson, Point-of-Purchase Advertising Institute; Don Hutchinson, Lutz & Sheinkman. Plans are being completed for the 1954 POPAI Symposium, to be held at the Statler Hotel, New York, next March.

The Society of Industrial Packaging & Material Handling Engineers' newly formed Maryland Division has elected the following officers: president, Carl Miller of Westinghouse Electric Co.; executive vice president, Nate Klein of Davidson Transfer & Storage Co.; vice president, Edward G. Matthew of Baker Industrial Truck Co.; treasurer, George M. Arnold of Arnold Factory Supplies; secretary, Karl Winter of Mathieson Chemical Corp.



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Packaging Chemicals!**

CLEVELAND CONTAINERS are IDEAL for dry chemicals!

More people today use chemicals than ever before . . . everyone from the lady of the house to the mechanic in the garage.

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That's why CLEVELAND CONTAINERS are the answer.

Added insurance against unnecessary deterioration with special liners, which are moisture resistant and greaseproof, such as aluminum foil, parchment, paraffin, glassine, etc.

Sizes and lengths as desired . . . closures, such as friction plug, slip cover, or screw cap; or with pouring spouts or sifter tops, depending on the product.

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U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey

Cylindrical Container and Method of Making Same, T. F. Barnes, Chicago, Ill. U.S. 2,638,820, May 19. In the art of making tubular containers comprising a tubular body having a tubular portion in telescopic engagement with a tubular portion of a cover, the method of simultaneously making the tubular portion of the body and the tubular portion of the cover in assembled telescopic engagement, comprising applying adhesive to the major portion of one surface of an elongated rectangular web of paper-like material, leaving a generally rectangular area free from adhesive, and simultaneously winding both web sections into cylindrical form.

Blank-Forming Press Feed, J. R. Baumgartner, Milwaukee, Wis. U.S. 2,638,821, May 19. The combination with a creasing and blank-forming press of mechanism for feeding a predetermined length of paper web to press comprising a set of continuously active web-feeding metering rolls, a set of intermittently active web-feeding rolls and means for driving intermittently active rolls at a higher speed than continuously active rolls.

Machine for Heat Sealing Thermoplastic Materials, E. J. Audina (to Ameco Packaging Machinery, Inc., Long Island City, N. Y.). U.S. 2,638,964, May 19. Apparatus for heat sealing thermoplastic pellicles, said apparatus capable of maintaining its own form under the heat and pressure imposed thereon as an incident to heat sealing, a frame engaging the edges of said sheet to support sheet in flat condition, a sealing shoe and means continuously to heat said sealing shoe.

Refill Unit for Blade Magazines, J. Muros (to The Gillette Co., a corporation of Delaware). U.S. 2,639,030, May 19. A refill unit for safety-razor blades comprising an elongated shell having a bottom, front and rear walls, an internal rib upstanding from bottom wall, a stack of slotted blades threaded on rib and a hold-down keeper slidable on said shell.

Separator Member for Use in Packing Articles for Shipment, L. J. Budd (to Pallet Devices, Inc., Melrose Park, Ill.). U.S. 2,639,032, May 19. In a package of spaced bowed articles arranged in generally parallel form and each having a peripheral flange projecting laterally from an outer surface of the article, a separator for disposition between the articles comprising a sheet-like member having attached to one face thereof a plurality of annular spacers in contact with an inner surface of an article inside its peripheral flange.

Container Closure, E. Gronemeyer, Pompton Plains, and S. Sherba, Totowa, N. J. U.S. 2,639,057, May 19. The combination with a container having a neck, said neck having an axial opening therethrough, neck having an outer lip in the form of an annular zone lying substantially in a plane at right angles to the axis of the neck, of a removable cap closing the axial opening through the neck of the container and effecting a temporary seal with the neck.

Elastically Sealed Closure for Containers, J. Lobl, Middleboro, Mass. U.S. 2,639,058, May 19. A closure for a container having walls defining a mouth opening, said closure comprising a generally cup-shaped plug formed of sheet material having a bottom wall and integral annular side walls terminating in an out-turned annular head, an elastic band having internal diameter less than the exterior diameter of annular side walls of the plug, said band being stretched and arranged exteriorly on plug with one end portion of band secured to plug at head.

Bag Filling, Closing and Tying Machine, E. E. West (to Chase Bag Co., Richmond, Va.). U.S. 2,639,069, May 19. An apparatus for filling a bag having a drawstring closure with a predetermined number of articles closing the mouth of the bag, tying the drawstring and discharging the filled bag.

Filling Machine Having Vertically Reciprocable Tamping Arms and Plunger, R. J. Goldberg, New York, N. Y. U.S. 2,639,072, May 19. In a two-step feeding machine for filling containers with particles of non-fluent material, a housing, an upright conical and perforated hopper fixed to housing and having a

tubular nozzle at its lower end with plunger reciprocally mounted on housing for up and down movement in hopper through nozzle.

Apparatus for Applying Caps to Containers, J. W. Kerlin (to General Foods Corp., New York, N. Y.). U.S. 2,639,075, May 19. Apparatus for applying container caps of the type closed by downward pressure applied to the top of the cap, comprising a conveyor means for moving a line of containers with caps placed loosely thereon, a chuck having a downwardly opening cap-receiving recess shaped to apply downward pressure to the top of a cap there and means for pivotally mounting chuck to swing in a pendulum-like arc.

Apparatus for Filling Containers with Moist Granular Material, G. E. Kerr (to Food Machinery & Chemical Corp., San Jose, Calif.). U.S. 2,639,076, May 19. Apparatus for filling containers with moist granular material comprising a filling hopper adapted to be filled with granular material having water entrained therein, a drain including a foraminous element horizontally disposed beneath said hopper, a pocket means operable to interpose said pocket between hopper and drain whereby a mass of granular material is deposited in pocket and substantial portion of entrained water is passed through pocket into drain.

Vacuum-Filling Stem, I. H. Risser (to U. S. Bottlers Machinery Co., Chicago, Ill.). U.S. 2,639,077, May 19. In a vacuum-filling-stem attachment for the filler head of a vacuum-filling machine and adapted to fill a container to a predetermined level, an inner and outer telescoping tube assembly with the outer freely movable vertically upon the inner.

Receptacle-Filling and Liquid-Level Control System, H. R. Karlen (to Cory Corp., Chicago, Ill.). U.S. 2,639,078, May 19. An apparatus including a receptacle, means for conducting liquid into the receptacle, an electric control circuit having a terminal in a liquid stream flowing into the receptacle and a second terminal positioned to be contacted by the pool of liquid in the receptacle, said circuit being adapted to be completed between the terminals through said liquid stream and the pool when the pool of liquid within the receptacle contacts the second terminal.

Multiple-Cell Carton, N. A. Petter, Glendale, Calif. U.S. 2,639,079, May 19. A multiple-cell carton comprising a bottom wall, a rearward side wall integrally joined with and turned upwardly from one edge of bottom wall, a single-ply front side wall integrally joined with and turned upwardly from the other edge of bottom wall, two parallel sets of transverse partitions overlying bottom wall, the outer ends of partitions of one set integrally joined with the upper portion of single-ply front side wall along generally vertically disposed hinge lines.

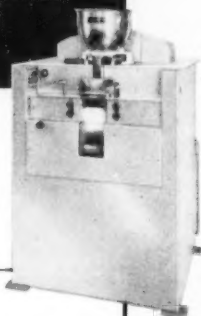
Folding Box, W. G. Anderson, Jr. (to American Box Board Co., Grand Rapids, Mich.). U.S. 2,639,080, May 19. A box having a bottom, two spaced vertical sides integrally connected thereto, a top connected at one edge to the upper edge of one of said sides, other flaps, one at each end of the top extending downwardly therefrom, top at each end thereof at the connection of flaps thereto having slots therethrough.

Carton Set-up Machine, R. J. Fahey (to Shellmar Products Corp., Chicago, Ill.). U.S. 2,639,648, May 26. In a machine for setting up knocked-down cartons in knocked-down condition by a folded longitudinal partition connected to the side walls of the carton and means for feeding the cartons longitudinally, a blade engageable with the longitudinal partition from a direction transverse to the direction of the carton travel to erect same internally of carton between side walls thereof.

Box-Staying Machine, M. V. Silby, New York, N. Y. U.S. 2,639,649, May 26. In a machine for attaching stays to the corners of box shells which are formed by twice folding the four arms of a cruciform blank upon themselves so that the outer walls of the shell are sloping and the inner walls thereof

The NEW Brown Formapak Machine

A Form and Fill Machine at a remarkably LOW COST



Any quantity of your dry, free-flowing products, from a few grams up to 1/2 ounce, can now be heat-seal packeted at remarkably low cost with the new Brown Bag Formapak Machine. Operating speeds from 40 to 100 per minute. Packets from 2" x 2 1/2" to a maximum of 4 1/2" x 4 1/2". Accurate controls of both temperature and pressure insure a strong seal, broken only by tearing the fibers. Will take other filling heads for products not entirely free-flowing or somewhat sluggish.

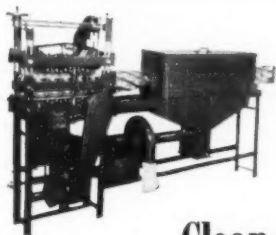
Write for complete details.

Occupies 3' x 3', over-all height 5'2".

Representative: Kruse Packaging Machinery, 5807 West North Avenue, Chicago 39, Illinois.

West Coast Representatives: Peter D. Bowley & Assoc., 210 Mississippi Street, San Francisco, California.

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COMPANY OF PENNSYLVANIA
HANOVER, PENNSYLVANIA

306

AUGUST 1953



Information Round-up

- TRADE-MARKING
- IDENTIFICATION
- DECORATION

Get the facts about Swift Nu-Hue and Dri-Hue. This 16-page illustrated booklet tells the whole story about these specialized color foils. Contains everything you need to know about application . . . equipment . . . operating temperatures . . . plus Swift *free* Laboratory Service. Evaluate the advantages of this Swift color branding process yourself . . .

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Here's the Best "PACKAGE" DEAL of the Year!



NEW NONWOVEN FABRIC Offers Advantages Impossible with Any Other Material!

Whether you win or lose in a tough market today often depends on your "package" deal—especially if you are a manufacturer of foods, chemicals, or any products with unusual packaging requirements. Versatile VISKON nonwoven fabric can solve your problems—economically—where ordinary materials fail!

Porosity, absorption, diffusion, and high wet strength—all are VISKON advantages—combined with amazing economy, durability and adaptability.

Investigate heat sealable VISKON. It's available in cotton or rayon fabric—in mill rolls, tapes or sheets—in a wide variety of grades. If you want the best "package" deal of the year, it will pay you to find out more about VISKON.

1. Heat Sealable
2. High Porosity
3. Soft—Flexible
4. Non-Toxic
5. Can Be Printed
6. Durable
7. Economical

8. Wide Variety of Sizes, Weights, Colors
9. Long Storage Life
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U.S. patents digest

are substantially vertical, a frame, a reciprocating plunger having a die at one end thereof, a reciprocating anvil and a stationary die.

Packaging of Tacky Materials, A. W. Barry and F. S. Chance, Jr. (to E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.). U.S. 2,639,808, May 26. A tacky, chloro-sulfonated-polyethylene enveloped in a thin, solid non-tacky film of inter-polymers of ethylene with vinyl acetate in which the mol ratio of ethylene to vinyl acetate is at least 6:1.

Machine for Dating and Applying Closures to Bottles, W. E. Zimmerman (to Stanard Packaging Corp., Chicago, Ill.). U.S. 2,639,850, May 26. A machine for applying and sealing closures to bottles, having in combination, an independent supply of preformed closures, a closure-applying station, a closure-sealing device, a conveyor for supporting a plurality of bottles, a timing device which embodies a bottle stop and a bottle-release lever.

Box, B. L. Thurston (to Frost Box Co., Inc., a corporation of Rhode Island). U.S. 2,639,854, May 26. A box comprising a body section having a bottom wall and a cover section having a top wall, each section being rectangular with side and end walls, the side and end walls of the cover section telescoping over the side and end walls of the body section when in closed position.

Can-Label Sorting Device, A. H. McClelland and K. R. Anderson, Los Angeles, Calif. U.S. 2,640,590, June 2. In an article-selecting mechanism, the combination comprising a pair of spaced, rigid parallel guides directing by lateral engagement a plurality of moving articles from which one is to be selected.

Compartmented Container, I. C. Ryder, Arlington, Va. U.S. 2,640,623, June 2. A compartmented container comprising a box-like container formed as a unitary element from a tough but fissurable material with an integral partition extending from side to side and the full depth of the box, said partition formed with a plurality of vertical-spaced channels and spaced side faces whereby said partition is weakened on a plane of cleavage parallel with a lid formed with a weakening groove partition.

Closure-Cap Retainer, F. W. Blanchard, Camas, Wash. U.S. 2,640,625, June 2. A closure cap for the open dispensing neck of a container comprising in combination a length of spring wire secured at one of its ends to said cap, the opposite end of the wire terminating in a coil spring disposed on the interior of the container.

Convertible Container and Closure Thereof, S. Newell, Mentor, Ohio. U.S. 2,640,626, June 2. The combination of a cylindrical container having an open end and a closed end, uniformly inclined cam elements provided on said container in circumferentially spaced relationship, said cam elements being nominally equidistant from the ends of said container, and a closure for said container having portions thereof engageable with said cam elements to releasably secure said closure to either the open end or the closed end of said container.

Apparatus for Packaging Commodities with Trough Member Supported Between Plates, C. T. Nichols (to Quik Pac Division of H. Wesley Hutchins Co., Auburn, Maine). U.S. 2,640,638, June 2. A unit for use in filling and holding bags, including supporting plates, with a trough mounted between and secured to the plates, a terminal of one side of the trough being extended to provide a bag-engaging blade.

Display Carton, W. P. Frankenstein, Cincinnati, Ohio. U.S. 2,640,642, June 2. In a display box or carton formed from a single blank cut and scored to form a base portion and a cover portion hingedly connected to one another through a hinge fold line, said base portion including a base-supporting panel and an upwardly spaced goods-supporting panel.

Handle Construction for Cartons and the Like, A. E. Brown, Richmond Heights, Mo. U.S. 2,640,645, June 2. A handle member made from a sheet of cardboard or like material, comprising a relatively narrow flexible handle section and relatively wide elongated first and second support sections secured to the ends thereof.

System of Can Transfer, G. B. Stryker (to Hunt Foods, Inc., Los Angeles, Calif.). U.S. 2,640,639, June 2. The method of loading dentable articles into containers, comprising a tank divided into two compartments by a partition, the upper edge of which terminates short of the upper side edges of the tank,



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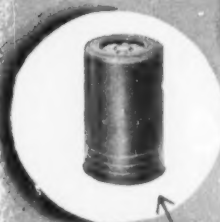
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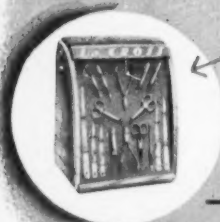
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placing a quantity of liquid in the compartments sufficient to fill one compartment to the level of the top edge of the partition and to partly fill the other compartment up to said level, immersing a container in the fuller compartment.

Continuous Heat-Sealing Apparatus, V. M. Morrel (to E. I. duPont de Nemours & Co., Inc., Wilmington, Del.). U.S. 2,641,166, June 9. A bag-making machine comprising, in combination, means for continuously folding the longitudinal edges of a continuously advancing web of thermoplastic material inwardly and in overlapping relationship to define a flattened tubing and a heated element positioned to contact the uppermost top side of the supported tubing.

Bag Bottom-Forming Device, F. Gramegna (to St. Regis Paper Co., New York, N. Y.). U.S. 2,641,167, June 9. In an apparatus for forming the ends of bag tubes, a conveyor for moving such tubes, a pair of suction cups, means for moving cups linearly along the path of movement of such tubes, and moving and mounting means positioned and controlled for grasping the opposite sides of a closed end of a bag tube and opening same.

Sealing Machine, G. R. Biddinger (to Swift & Co., Chicago, Ill.). U.S. 2,641,304, June 9. A device for sealing the extending sides and end of a sheet of thermoplastic material wrapped about an object, device including a frame, a hotplate on which said wrapped object may be placed with end of material against the plate, said plate being mounted on frame, heating means for plate and a pair of jaws on either side of plate to seal extending ends.

Sealing-Strip Severing Machine, D. Brody (to Van Brode Milling Co., Inc., Clinton, Mass.). U.S. 2,641,318, June 9. In a sealing-strip severing machine the combination with a guideway, of a belt conveyor for advancing a series of boxes connected by a continuous sealing strip along a guideway, means whereby each box is elevated by a transverse bar in its travel along guideway and then permitted by gravity to drop back onto said conveyor for breaking the connection between its sealing strip and that of the box following.

Dispensing Caps for Bottles, J. Parziale and R. P. White, Cleveland, Ohio. U.S. 2,641,376, June 9. A device comprising a spout member of rigid material and having projections extending outwardly from opposite sides of its lower portion and a neck in bellows form with its upper end portion affixed to the inside surface of the lower end portion of spout.

Label-Applying Machine, N. A. Zander, Stow, Mass. U.S. 2,641,377, June 9. In a labeling machine, a horizontal conveyor, a frame pivoted at one end beside said conveyor to swing from a position alongside the conveyor and a label magazine mounted on side of conveyor, said magazine including means for supporting labels in position to be successively engaged by objects carried by conveyor.

Container With Handle Stacking Means, G. E. Coursey (to The Charles Wm. Doepke Mfg. Co., Rosslyn, Ohio). U.S. 2,641,383, June 9. A small-parts container comprising outwardly flared side and end walls and a bottom, said end walls being lower than side walls and flared to a substantially greater degree than side walls.

Bottle-Capping Machine, W. A. Barrett, Fort Wayne, Ind. U.S. 2,641,398, June 9. A bottle capper comprising a fixed shaft, a sleeve slidable up and down thereon to and from a bottom position, resilient means for urging the sleeve to the bottom position, a cap-presser means on the sleeve and a cap magazine mounted on the sleeve.

Cup-Shaped Foil Capsule, O. J. Bruun, Slough, England. U.S. 2,641,402, June 9. A container having a side wall formed as a surface of revolution comprising thin soft metal foil formed into cup shape and having pleated side walls of compressed overlapping layers of foil material, container having a number of grooves impressed over the entire surface of the side walls and being superimposed over said pleats, thus causing the overlapping layers of foil to interlock.

Handled Cup, K. T. Buttery and L. W. Sutherland, Jr. (to Sutherland Paper Co., Kalamazoo, Mich.). U.S. 2,641,403, June 9. A cup comprising a side wall formed of a blank having a body portion terminating at one end in a sealing flap conformed at its end and slitted to provide oppositely disposed U-shaped handle member, the sealing flap being lapped upon the outside of the other end of the body and adhesively secured thereto.

Cold brittleness of polyethylene

(This article continued from page 123) shattering at temperatures 6 or 7 deg. above the measured cold brittleness temperature of the undamaged film. Very sharp creasing of the film also appears to have an effect on the temperature of shattering. Thus, completely unmarred film is essential for reproducible determinations of cold brittleness temperature by this method.

Apparatus

Fig. 4 shows the instrument used in most of the brittle point determinations. The vertical height of ball elevation above the point of impact is 36 in. and the slope of the inclined track 60 deg. from horizontal. The diameter of the sample-clamping ring is 5 inches. The steel ball used is 1.5 in. in diameter and weighs 150 grams \pm 1 gram. This instrument gave excellent results and was quite simple to use, but occasionally it would not break film 3 or 4 mils thick. The use of a 2-in.-diameter ball helped break all but the toughest of films. It was found that the higher energy of the heavier ball did not affect the deter-

mined brittleness temperature. Also, variations in the height of drop over a wide range did not alter the results.

The cold chamber used for testing was designed in our own laboratories. This test chamber measured 3 by 3 by 4 ft. It was cooled by circulating air first through dry ice in the bottom of the box and then into the test chamber above. A 3450 r.p.m. blower (powered by a $\frac{1}{2}$ h.p. motor) was used for this operation. The temperature in the chamber was measured with an iron-constantan thermocouple attached to a recording potentiometer. The thermocouple was attached to record the free-air temperature 1 in. from the film surface.

The chamber was opened on the top to insert the test specimen and 10 min. were allowed for the sample to come to complete temperature equilibrium. An American Instrument bimetallic temperature controller attached to the blower maintained a temperature within ± 1 deg. C. of the norm.

Temperatures down to minus 75 deg. C. could be achieved in this

equipment with dry ice as the coolant. Lower temperatures could be reached with supplementary cooling by liquid air. It is believed that a continuous mixing fan might profitably be installed in the test chamber of the cold box to minimize stratification and thus improve the degree of temperature uniformity throughout. Such an improvement does not appear to be strictly necessary, however, as judged by our experimental results.

Experimental results

Cold brittleness temperatures of from minus 48 to minus 76 deg. C. have been measured on films extruded from standard commercial polyethylenes. (For representative values see Table IV.) Those polymers of the highest molecular weight yield films with the lowest cold brittleness temperature in general. A rough correlation of cold brittleness temperature with molecular weight of the polyethylene was observed, but obvious discrepancies have led to the conclusion that properties of the resin other than molecular weight do affect the cold brittleness tempera-



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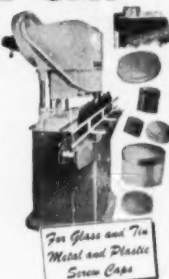
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ture. Variables such as molecular weight distribution, chain branching and oxidation also seem to have an effect on the measured cold brittleness temperature. It appears that the data on the molecular structure of polyethylene (3) which were presented by research men from DuPont Polychemicals before the American Chemical Society in Los Angeles this spring are highly pertinent. No direct correlation of brittleness temperature with molecular structure has been attempted here, however.

It is also known that variations in the conditions of extrusion affect the cold brittleness temperature of film extruded from a particular type of polyethylene. Differences of as much as 10 deg. C. have been noted in extreme cases, but over the normal fluctuations in extrusion temperature and within the practical variations in film orientation a spread of 5-6 deg. C. seems to encompass the range of brittleness temperatures encountered with films from a particular lot of polyethylene. It has been noted that films extruded from polyethylene containing an antioxidant tend to run slightly lower in brittleness temperature than do films from equivalent polymer containing no antioxidant.

Films from regular homogenized polyethylene extrusion powders give more reproducible brittleness measurements than do films extruded from unworked polymer.

The value of the test in rating polyethylene films for balloon service has been reasonably well established. Certainly balloons from films with cold brittleness temperatures in the range of minus 50 to minus 60 deg. C. have consistently had poor performance records in high-altitude flights. With balloons from films with cold brittleness temperatures in the range of minus 70 to minus 75 deg. C., the records have been significantly better. There are many other factors which may contribute to balloon failure and also the materials are obviously operating in a critical temperature range when they are aloft.

Hence, it is not astonishing that the correlation between the test and flight performance has been less than perfect.

Since the prime interest here has been in polyethylene films, there has been no organized effort to apply the test to other plastic films. The method does appear to be useful, however, in testing other types of materials which are of interest to the packaging industry and which may become brittle at normal service temperatures. In Table V some representative data are reported.

Acknowledgement

Manufacturers of polyethylene and film extruders were significant contributors to this development. Among the firms supplying samples in large number and also ideas for the program, the following deserve special mention: Union Carbide's Bakelite Co.; the DuPont Polychemicals and Film Departments; the Imperial Chemical Industries, Ltd., Plastics Div.; Plax Corp. and the Visking Corp.

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Problems of purchasing

The purchasing agent who buys packaging supplies should ideally have five qualifications, Robert de S. Couch, president of the Packaging Institute, told the Packaging Assn. of Canada in Montreal recently. These include (1) a degree in business administra-

tion, (2) ability to meet people, (3) ability to sell his company as a good place to do business, (4) an understanding of his company's packaging and manufacturing problems and (5) a knowledge of the suppliers' manufacturing problems.

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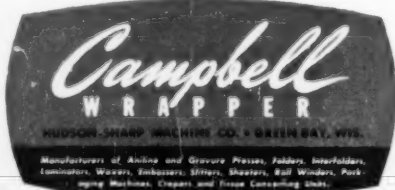
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'3-D' packages

Recipe Foods, Inc., in Baltimore, home of Bennett brand food products, believes in promoting the package—in 3-D no less. Outside a new enlarged



plant and office building, the company has on display three giant three-dimensional replicas of its best-known products: prune juice, mayonnaise and chili sauce.

The replicas, fashioned out of a new, weatherproof plastic material, are faithful reproductions of the originals, even down to the exact color and detail of the contents in each package. Brilliantly floodlit by night, the display registers hundreds of thousands of impressions around the clock from its strategic location dominating one of Baltimore's most heavily traveled crosstown arteries.

Change with times

The pitfalls of obsolescent packages were underscored by industrial designer Donald Deskey before members of the National Confectioners' Assn. at their recent annual convention.

"Between the first sketch of a new package design and the introduction of the repackaged product in the national market," Mr. Deskey explained, "there may be a period of one or two years. A lack of awareness, on the part of the manufacturer, of packaging changes in his industry, accelerated by the quickened tempo of competition, may well lose for him an important segment of new business that might have been captured by a timely design change." He reminded his listeners that graphic arts design plays only a relatively minor role in a fully integrated packaging program. "Market surveys, cost studies, materials research and development and a knowledge of manufacturing techniques are all important tools of the modern industrial designer."

The only right answer to a packaging problem, the speaker pointed out, is the one that increases sales.

Testing film bags

(This article continued from page 125) were tested at two different depths in the water. The differential pressure which causes the leaks is independent of the hydrostatic pressure as long as the depth of water at which leaks occurred is subtracted from the manometer reading as shown in Table II.

When plastic tubing having no heat-sealed area is used and leaks appear at pressures below the bursting point of the plastic, the existence of pinholes is established. The air pressure used for testing pinholes in plastic tubing or bags was limited to 8 in. of mercury. If the plastic container shows no air bubbles when subjected to 8 in. of mercury pressure, testing is discontinued and the container is regarded as being practically free from pinholes. An atmospheric pressure drop of about an inch of mercury occurs when the altitude is increased each 1,000 ft. above sea level. The 8 in. of mercury pressure which is suggested as a limit for testing pinhole and sealing leaks of plastic containers would allow the package and contents to be transported approximately 8,000 ft. above sea level without danger of failure at these points. These altitudes include all major cities in the United States. It would appear that plastic containers which withstand 8 in. of mercury pressure are suitable for general food-packaging use.

Acknowledgment

The authors are indebted to The Visking Corp., Chicago, for supplying the Visqueen polyethylene and saran samples and also to Drs. R. R. Legault and M. P. Steinberg for their valuable suggestions.

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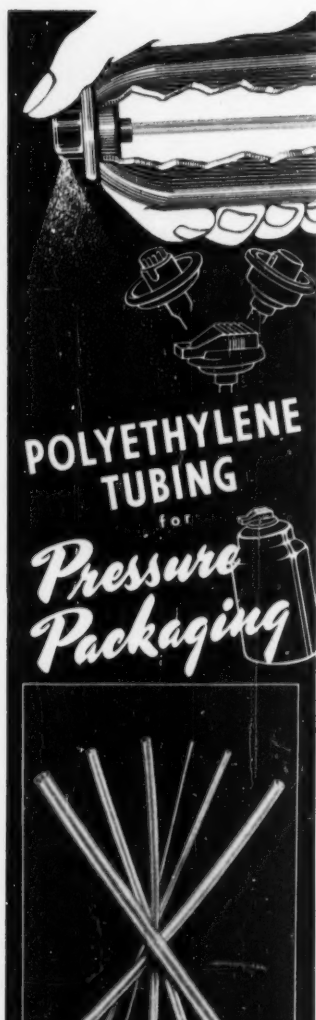
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Dr. West's Toothbrush

(This article continued from page 93)

Another interesting current counter display unit is the new Spot Sale Spinner, which holds 48 brushes in four revolving tiers, making it easy for the prospective buyer to rotate the brushes and select the desired color and bristle texture. This display, like many excellent units which have preceded it, is specially designed for use at "high traffic" spots such as wrapping, cosmetic and tobacco counters. It rests securely on a scuffproof formed plastic base.

Such displays, as well as the sealed glass packages themselves, epitomize the aggressive merchandising policies which have always been characteristic of the Weco operations. The same driving effort to improve the brushes themselves and to create more effective sales campaigns was apparent in Weco's introduction, in 1928, of the first bright-colored, molded plastic toothbrush handles.

Top-quality packaging has played an important part in the steady sales growth of Dr. West's Toothbrushes, which jumped from approximately two million brushes in 1921 to 6,300,000 in 1926, 7,000,000 in 1932 (despite the depression), 9,260,000 in 1938 and then soared to approximately 30,000,000 in 1943, including both civilian and military sales.

Weco is far from satisfied that the saturation point on toothbrush sales has been reached or even approached. There is believed to be a toothbrush potential in the U.S. of more than 300 million brushes per year, or two brushes per year per inhabitant. Yet it is estimated that only about one-half the population uses a toothbrush regularly and that all too few of these persons consider it necessary to replace their brush more frequently than once a year. In a 1948 research project conducted in cooperation with the American Dental Assn., it was found that more than 80% of all the toothbrushes in American homes—four out of five—were either unfit for use, insanitary or simply worn out. Further evidence that Americans were not taking proper care of their teeth was turned up during World War II, when draft records showed that 21.5% of the rejections for military service were caused by bad teeth.

During that war, Weco Products was granted a Government priority on

the continued use of the sterile glass container due to its importance as an aid to public health. It was still necessary, however, to confine the use of the container to only about half the production of Miracle-Tuft Toothbrushes, in order to extend available supplies of glass tubes. These were supplemented with open-topped cartons with cellophane overwrap.

A package of similar construction was also used for some time for the companion line of Dr. West's "25" Toothbrushes, now referred to as the "Nylon" Toothbrush. This line is currently packaged in extruded clear plastic (acetate) containers having a bottom and slip-off cap made of the same material. The label for this package is applied directly to the side of the container as part of the manufacturing operation.

The sealed glass tube, used for the top-quality brushes in the Dr. West's line, continues to receive the major share of advertising and promotional attention. A notable series of black and white ads appearing earlier this year in *Life*, *Look* and several other leading magazines, again dramatize the unique features of the package.

One has but to look at any drug store or supermarket dental department to see the packaging revolution engendered by the Dr. West's sealed glass container—the first completely visible package ever used for a toothbrush. In one form or another, practically every major toothbrush manufacturer is now utilizing either glass or plastics to protect his products and show them off to maximum advantage. "Thumb-Brushers" are gone. The packaging innovations fostered by Weco Products assure today's customer of a clean, well-identified toothbrush which has been treated with respect up until the actual time of its purchase.

CREDITS (current suppliers)—Glass containers, Kimble Glass, Div. Owens-Illinois Glass Co., Toledo 1, Ohio. Shrink-type cellulose seals, The Celon Co., 2034 Pennsylvania Ave., Madison, Wis. Dozen cartons and die-cut inserts, Imperial Box Die., Morris Paper Mills, 1740 N. 25 St., Melrose Park, Ill. Thermoplastic labels, A. J. Andersen Co., 429 W. Superior St., Chicago. Corrugated shipping containers, Elgin Corrugated Box Co., Elgin, Ill. Thermoplastic labeling machines, Dumatic Industries, 12 St. below Jefferson, Philadelphia 22, Pa.

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Ever-ready squeeze

(This article continued from page 85) of the tag—the adhesive wall plaque. Copy on the plaque itself, which is also in teardrop shape, explains how to peel off the backing and attach it to the wall.

During shipment and display, a piece of red pressure-sensitive tape seals the dispenser hole to avoid accidental discharge.

An unusual type of counter merchandiser which dramatizes the convenience features of the container is being used to promote sales of Noreen's new shampoo product. It consists of a flat piece of 10-ply board which bends around and hooks into the back, forming a cone-shaped unit on which six of the shampoo dispensers are hung. This display, attractively lithographed in red, pink and black, draws attention to the product and facilitates self-service merchandising.

Experience to date indicates that the container and product can be handled satisfactorily on a piston-type filling machine. A speed of nine 4-oz. containers per minute has been attained, with minimum foaming, on a single-head unit. It is believed that this can be improved by maintaining a slight vacuum in the container at the time of filling. After the filling operation, the cap is placed on the bottles by hand before pressure is applied to expand the cap over the ring. Modification of an automatic capper is being considered through which the caps would be pressed on after being indexed manually to the bottles. Bottles are then inspected for any imperfections of container or contents, after which the instruction tags with the pressure-sensitive hook plaques are attached and the finished items packed for shipment.

When the original contents have been exhausted, the Noreen container can be used to dispense hand creams or other fluids, as explained on the product information tag. The top may be removed by pressing it off and replaced after the container has been refilled.

CREDITS: Polyethylene containers and closures molded by Imco Container Corp., 75 E. Cleveland Sts., Kansas City, Mo. Counter display merchandiser, Irving Woolf & Co., 35 S. Dearborn, Chicago. Adhesive wall plaque, Mystik Adhesive Products, 2635 N. Kildare Ave., Chicago 39.

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Printing corrugated

(This article continued from page 100) shipping container for Admiral television sets, which was a first-award winner in the surface design and printing classification in the recent first annual competition of the Fibre Box Assn.

Golde Mfg. Co., Chicago, uses a horizontal film-strip design device encircling a corrugated container to illustrate film projectors, slide file cases, spotlights, slide binders and other items in the Golde line of photographic equipment. The container does an effective job of selling other items in the company's line through the exceptional detail in which the various products are pictured on the container by means of the new printing technique.

Faced with the problem of having its line of knocked-down television furniture easily identified and located in warehouse stocks, Universal Woodcrafters, Inc., La Porte, Ind., adopted specially designed and printed corrugated containers with actual reproductions of the items printed on the end panels, along with the company name and trademark. Stacked so that only the ends are visible, these packages may be easily located by warehouse personnel, giving them a distinct advantage over competitive items which are poorly identified. The illustrations show not only the style of the item packaged, but also do a good job of portraying the actual grain of the wood. This feature of the container is also useful in retail-store displays and reserve stocks.

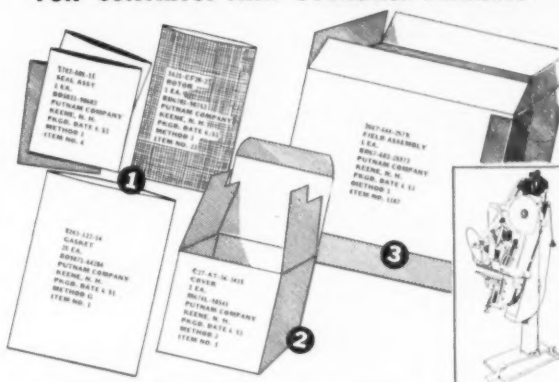
Food manufacturers have found that product illustrations on their corrugated shipping containers can be a sales asset. Rose Packing Co., Chicago, features a color vignette of a platter of Canadian-style bacon, suitably sliced and garnished, on the top surface of the corrugated shipping container used for its Wimer brand Canadian-style bacon, giving appetite appeal to what otherwise might have been a routine, type-only printing job. A secondary vignette, which is reproduced in smaller size, illustrates another suggested serving method for the product.

CREDITS: Multi-Tone containers and printing method, Stone Container Corp., 4200 W. 42 Pl., Chicago 32, Ill. Design of Star hair-cutting-set carton, Richard M. Franz, 108 W. Wells St., Milwaukee.

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IDENTIFICATION MARKING FOR CONTRACT AND OVERSEAS PACKING



In contract and export packing of parts, assemblies, etc., certain JAN specifications call for three packaging stages: (1) enclosure in scrim-back or polyethylene lined heat sealing envelope, (2) intermediate packing in a folding box, (3) final packing in corrugated carton. Each of these three types of containers must be marked for instant and permanent identification. Many manufacturers, dissatisfied with conventional marking with crayon, stencil, labeling or other form of hand stamping, have not only found great savings in time and money, but also obtained more legible, longer lasting identification using a Markem Method. One Markem machine (with appropriate Markem type and Markem ink) prints desired information on all three containers. The vapor barrier of the envelope is not broken. Desired information is changed rapidly. By printing quantities of containers as and when needed, inventory problems are minimized. In this way, the Markem Method insures positive identification when the items reach their destination.

MARKEM

MARKS THEM ALL



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Identification printing for contract and overseas packaging is but an example of how Markem solves industry's marking problems. Markem has been providing industry with production techniques and equipment to identify, decorate or designate its products, parts and packages since 1911. Markem also provides technically trained men who are available in your area to assure continued satisfaction with Markem methods and equipment.

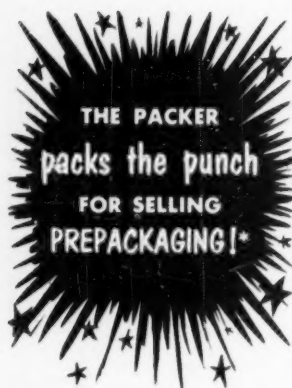
When you have a marking problem, tell us about it and send a sample of the item to be marked. Perhaps a complete Markem Method has already been developed to solve your problem. If not, Markem will work out a practical solution.

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Last forms close Sept. 20th. Produce Prepackaging Conference and Exposition, St. Louis, Mo., Week of Oct. 4th.

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Plax, Owens-Illinois deal

An arrangement by which the Owens-Illinois Glass Co. of Toledo, Ohio, may obtain a substantial share of ownership of Plax Corp., Hartford, Conn., awaits approval of the U. S. District Court in Toledo.

Owens-Illinois has announced that it has agreed to invest \$8,000,000 in Plax, for which it would receive 250,000 shares of common stock. According to the *Wall Street Journal*, this represents 50% of the outstanding common stock of Plax.

A subsidiary of Embart Mfg. Co., Hartford (formerly the Hartford-Empire Co.), Plax Corp. is one of the largest producers of blown plastic bottles, as well as film and other products made of polyethylene.

Owens-Illinois has asked the U. S.

District Court to construe the final judgment in the case of the U. S. vs. Hartford-Empire Co., a 1937 anti-trust case having to do with control of glass-making machinery, as having no application to the proposed Plax transaction. Should the Court determine that the final judgment in the Hartford-Empire case does apply, the petition requests that the court specifically approve consummation of the agreement.

C. R. Megowen, president of the Owens-Illinois Glass Co., has stated that the investment in Plax "will in no way affect the operations of Owens-Illinois in the packaging and closure fields."

Plax Corp. has made no statement on the matter

Pre-engineered shipping package

(This article continued from page 109)
dous loading factor. The carton is automatically stapled, top and bottom.

Economically, the box is ideal. It was discovered that the carton could be used with any style of Calnevar hub cap. This eliminated the stocking of six different sizes of cartons and the consequent storage and financial headaches. Packaging time has been cut by approximately 35%. The carton can now be packed as easily and in as little time as it takes to stack eight phonograph records. The waste motion of sealing with gummed tape has been eliminated by the stapling procedure.

An unforeseen economy in time and money was the use of the sunburst separators in the manufacturing processes. The self-centering qualities of the separators permit units in production to be stacked 6 ft. high with no other support or tissue needed to avoid abrasion. Today there are as many sunburst separators in use on the production line as there are used in packing. This has resulted in an extremely gratifying record of fewer rejections from abrasion during manufacture.

Before the new package was placed in production it was subjected to exhaustive testing. Sets of boxed merchandise were stacked 30 ft. high for a month with the bottom units showing no evidence of crushing. Shipping tests were undertaken both in the laboratory and under ac-

tual conditions. A Los Angeles testing laboratory subjected the cartons to extreme excursion and amplitude vibration tests. During this time dozens of packed units were shipped across the country, city to city, via truck, train and aircraft without any evidence of abrasion. A series of drops from heights up to 12 ft. was also undertaken. The cartons came through with flying colors.

Today more than 500 sets of Calnevar wire-wheel hub caps are being shipped in the new cartons every 24 hrs. to points all over the world. So far there have been few returns because of abrasion or damage. Hundreds of compliments have been received by the company from its thousands of distributors, jobbers and dealers.

Dealers in particular have been very pleased with the package, as the hub caps can be removed for display purposes and then repacked quickly and simply by anyone.

Needless to say, the Calnevar Co. now looks upon packaging as one of the most important facets of its operation.

CREDITS: Corrugated cartons and fittings, National Container Corp., 500 Fifth Ave., New York 36. Vibration testing, Wyle Laboratories, 340 E. Franklin Ave., El Segundo, Calif. Power-belt conveyor designed and built by M. E. Canfield Co., 419 E. Third St., Los Angeles. Automatic stapler, International Staple & Machine Co., 1547 Estudillo Ave., Los Angeles.



4 Color Printed Kraft Gummed Sealing Tape Pays EXTRA DIVIDENDS...

BECAUSE

- ★ Every carton and package leaving your plant carries your 4-colorful advertising message everywhere — at no extra cost.
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- ★ The uniform quality of On-to-Sta Kraft Sealing tape is protected in waterproof wrapping paper.
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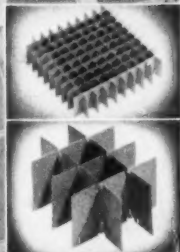
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Fine Foods Sell Faster In These Distinctive Containers

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"I never dreamed that tubes could be so attractive!"



• By showing how dramatically products could be presented and how effectively costs could be reduced, Niemand Bros. has shifted many leading companies to tubular containers.

Niemand Bros. styles tubes up for eye-appeal . . . decks them out with printing and fancy papers . . . coats them . . . gives them paper, metal, or plastic ends . . . and shaker or sifter dispensers, when needed.

In the hands of Niemand Bros. tubes are *high styled*. Ask for suggested designs for your products.



Plastic box premium

Late winter ice cream sales, usually in the doldrums, were rejuvenated by

Mayfield's Creamery, Athens, Tenn., with the aid of a premium offer—a plastic refrigerator box which also served as the package during the 60-day promotion. The sale was backed up by announcement posters.

The size of the plastic box was simply made large enough to hold the half-gallon carton of the company's ice cream, thus forming a single selling package. Information on the special—the 95-cent carton of ice cream and the 79-cent plastic box both for \$1.15—was featured on a label glued to the outside of the plastic container. A point-of-sale display piece repeated the information. Brand name and flavor printed on the ice cream carton was naturally seen through the transparent plastic box.

The creamery's goal was to place at least two plastic boxes in the home of every ice-cream customer. Some 6,000 boxes were used in the promotion and the reaction of customers, who took advantage of the offer in supermarkets, groceries, drug stores and restaurants, was reported good.

CREDIT: Rigid plastic box, Tri-State Plastic Molding Co., Inc., Henderson, Ky.



Bright supply outlook

The first quarter of 1953 was a happy one for both users and suppliers of packaging materials, according to an analysis presented in the Summer, 1953, issue of *Containers & Packaging*, published quarterly by the U. S. Department of Commerce. Conservative, yet confident buying, the publication reports, pushed sales of packaging materials ahead of the same period in 1952. Generally, materials were available with the exception of polyethylene, a shortage which is expected to be corrected before the year ends.

As an indication of the production-demand balance, the publication cited the minimized inventories of both container manufacturers and users. Orders tended to be more frequent and for smaller quantities, with deliveries on a short-notice basis. As a matter of fact, order backlogs—below previous levels—reflected this buy-for-immediate-use tendency of users.

The improvement over the first quarter of 1952 was reflected in the production increases of most packag-

materials such as burlap bags, 26.5%; aluminum foil and cellophane, 20%; metal and plastic caps, 25.6%; collapsible tubes, 24.8%; fibre drums, 12-15%; glass containers, 13.9%; set-up boxes, 10%; metal cans, 8.6%; wirebound boxes and crates, 6.1%.

Volume gains are expected to continue through the second quarter, but the yearly total will probably equal or inch slightly ahead of the 1952 level. Lower prices of tin, plastics, textiles and some boards will partially relieve rising manufacturing costs and also will result in more favorable prices of finished containers.

Although Orders M-25, Cans, M-26, Packaging Closures; and M-27, Collapsible Tubes, were revoked during the first quarter, earlier relaxations made possible the orderly transition in container-manufacturing-selling-purchasing relationship. There was no evidence of over-buying or stockpiling as the result of free economic movement; on the contrary, free market operations reassured users of a continued demand-supply balance.

Cellulose bands

(This article continued from page 82)
machines are in commercial use and at least two other makes are in the final stages of perfection.

Considering the mechanical problem of picking up a wet, slippery band and accurately positioning it on a bottle top, this has been no mean accomplishment. The liquor industry, which for years suffered with hand banding as the sole manual operation in its highly mechanized, high-speed bottling operation, has been the chief instigator of the machine development and so far its chief beneficiary.

A skillful worker can apply about 35 to 40 bands per minute by hand. This meant that four to five employees were required on this operation to handle the output of a typical 150-per-minute liquor-bottling line. Now a single automatic machine can keep pace with the line.

One of the machines now in use works from roll stock of cellulose tubing, cutting the bands to size immediately before application. The other deals pre-cut bands from a magazine.

A machine of the former type² is now in operation at the plant of Parke, Davis & Co., in Detroit. At this time the machine is handling only plain unprinted bands. But whenever a printed band is required, this machine can be equipped with an electric eye to cut off the band at a pre-determined point for positive registration. This feature is important to distillers, who must band their bottles so that the tax stamps are visible through specially designed bands which have a clear "window" section.

In securing the closure on Parke, Davis' Abdee Drops, an aqueous vitamin solution, the bands, in roll form, are fed into position over the bottle before being cut to precise length. A starwheel feed indexes the bottle into position to receive the band. The band is then opened by a combination of mechanical and vacuum actions, while the cut band is accurately positioned over the bottle. The band is finally automatically stripped off a plunger over the bottle neck and cap.

Simple attachments permit quick change-over to various sizes of bands and bottles, within limits. Only one operator is needed to renew the roll of banding material and he can work

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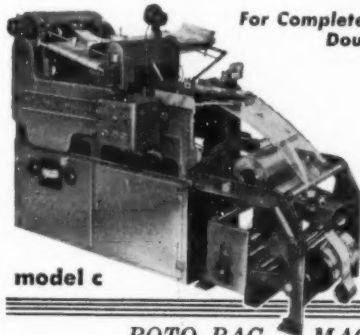


Roto Bag THUMB-NOTCH ATTACHMENT

A NEW SPECIAL FEATURE
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USE OPTIONAL AT ALL TIMES

Chalk up another first to the score of this famous cellophane bag producer . . . the first easy-opening heat-seal bag! The Thumb-Notch device provides a semi-circular cut on the front lip of the bag opening thus insuring top performance in either manual or fully automatic bag opening operations. Its use is optional at all times on a machine so equipped.



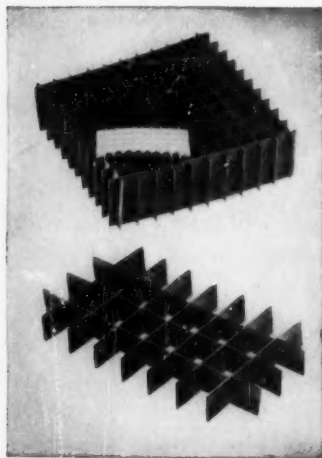
For Complete All-Requirement Protection
Double Seal By Heat And Glue!

The Roto Model C combines the positive moisture barrier of heat-sealing with the dependable strength of glue. Add to this very high production rates (up to 150 bags per minute) on cellophane and polyethylene coated cellophane along with the same airtight protection and it is clear why Roto-made bags are preferred by particular packagers everywhere!

ROTO BAG MACHINE CORPORATION

130 East 13th Street, New York 3, N. Y.

² See "New Automatic Cellulose Banding Machine," MODERN PACKAGING, Dec., 1952, p. 158.



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other machines on the bottling line as well.

The second type of machine which utilizes cut bands is in operation at the plant of the Fleischmann Distilling Corp., Peekskill, N.Y. A continuous-operating, turret-type machine, it applies printed or plain bands to round, flat or square bottles in all sizes from half pints to quarts. The turret consists of eight band-applying heads, each with a band-feeding and application mechanism which can be kept filled by one operator. Speed of operation ranges from 50 to 150 bottles per minute, depending upon the speed of the bottling plants' over-all production line.

This machine, primarily designed for the liquor trade, also spots bottles so that "window" bands are accu-

* See "New Automatic Cellulose Bands in Operation," MODERN PACKAGING, JUNE, 1952, p. 186.

ately placed over the tax stamps.

There can be little doubt that, with two machines now in operation on production lines and two more in the cards, the long-standing deterrent to high-speed banding is at an end. What has been done in the liquor and drug industries can be done for any company with the volume to warrant it.

CREDITS: The shrink-type cellulose bands described here are variously produced by The Celon Co., 2034 Pennsylvania Ave., Madison 4, Wis.; E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., and the Sylvania Div., American Viscose Corp., 1617 Pennsylvania Blvd., Philadelphia 3, Pa.; Davis machine (roll type), Economic Machinery Co., division of Geo. I. Meyer Mfg. Co., 60 Fremont St., Worcester 3, Mass.; Fleischmann machine (cut type), American Machine & Foundry Co., 511 Fifth Ave., New York 17.

Cut container handling time

A closed container of corrugated fibreboard which is now protecting the porcelain-coated Maytag automatic washing machines has resulted in a



66% saving in container handling time.

By using a triple thick container, reinforced with bands of $\frac{1}{2}$ in. steel strapping tensioned around each of the folding flaps, Maytag has completely eliminated the need for pallets and skids. This trick was turned by installing special short pick-up fingers on lift trucks in place of the standard forks. These fingers fit under the flaps of the new containers and the strength of the steel strapping is sufficient to allow the fingers to carry two packaged washing machines at a time. Tube section of the container is cut with four 3-in. flaps at both top and bottom. Caps, having double folding

flaps, fit over and interlock with top and bottom of tube section.

Ordinarily, the 245-lb. steel-strapped packages would be transferred on pallets and skids from the production line to storage or to carriers by standard fork trucks. Now, however, with the reduced overall length of their lift trucks, operators have increased maneuverability. When loading freight cars, operators move the forkless lift trucks in and out of the car more quickly and spot and stack packaged washing machines with greater accuracy.

Test shipments to six widely scattered points have proved that the heavy duty corrugated containers provide adequate protection. In addition, the space on the tube section of the container is utilized for advertising messages so that the package also serves as a traveling billboard.

Thus, through the use of newly designed containers reinforced with steel strapping, handling time has been substantially reduced and the cost of repairs and replacements to pallets and skids has been entirely eliminated, according to the Maytag management. These savings more than offset the cost of the container.

CREDITS: Corrugated fibreboard container, Gaylord Container Corp., 111 N. Fourth St., St. Louis, Mo. Steel strapping, Acme Steel Co., 2840 Archer Ave., Chicago 8.



SALES-BUILDERS!

Developed by Foil Kraft of Los Angeles, food trays like these made of Kaiser Aluminum Foil more than doubled sales of enchiladas for XLNT Spanish Foods Company. Here's why:

More convenient—Cooked and frozen foods can be heated, evenly and rapidly, right in the tray. No transfer necessary as with cardboard containers.

Better flavor—There is no loss of taste through absorption. No pulp which can be scraped up with the food. And aluminum foil imparts no flavor.

More sales appeal—Attractiveness of Kaiser Aluminum Foil catches the eye... reflects the quality of the product.

Longer shelf life—Kaiser Aluminum Foil retains original product quality much longer than cardboard containers... permits distribution over far wider area.

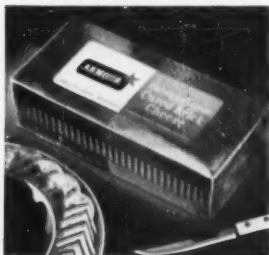
Consider these advantages for some of your customers. Call us now and we'll gladly work with you. 65 Kaiser Aluminum offices and warehouse distributors in principal cities. Kaiser Aluminum & Chemical Sales, Inc., Oakland, California.

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PREVENTS DEHYDRATION—Quick-freezing of seafood in Kaiser Aluminum Foil prevents dehydration. Foil also assures standout appearance, wet strength, quick heat sealing and good cold transfer.



PROTECTS QUALITY—Kaiser Aluminum Foil prevents drying out of cheese, prevents costly weight loss. Sparkle of package immediately associates product with quality. Suggest this use to your customers.



PREVENTS DETERIORATION—Ductility of Kaiser Aluminum Foil makes it easy to shape around machine parts, tools...protects against moisture, corrosion.



PERMITS RE-USE—Military ration packs lined with Kaiser Aluminum Foil remain moisture-proof. If only part of contents are used, air can be removed by pressure and package re-sealed again and again.



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shapes up to sell your products!
 completely visible,
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BLISTER-PAK adds new dimensions to product packaging and merchandising, especially for small units of irregular shapes. New vistas are opened, particularly for non-food products, in unit vending and for counter display. Blister-Pak provides—via vacuum drawing of transparent plastics to the shape of your product—a protective package as well as a quick method of assembling on die-cut printed cards with built-in pressure-sensitive adhesion. Your product is given distinctive display value with complete visibility, and Blister-Pak makes it dust-proof, moisture-proof, pilfer-proof . . . ideal advantages for super-market distribution as well as other retail outlets.

Merit offers a complete merchandising job—full facilities under one roof. That means exceptional service from design through production, and full control of every operation. For modern self-service merchandisers that work—you can depend on Merit know-how and facilities.

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Cellophane price up

An increase in the price of Du Pont cellophane, averaging 3½¢ or 2 cents per pound, has been announced by E. I. du Pont de Nemours & Co., Inc., which said that the rise was caused "by higher cost of doing business due principally to increased prices of important raw materials used in manufacturing cellophane and recent wage increases."

There was no immediate indication whether the other two producers of cellophane—Olin and Sylvania—would follow suit. The two competitors declined to comment on the Du Pont action.

According to the Du Pont announcement, the average selling price of Du Pont cellophane is now 57 cents a pound as against 55 cents prior to the increase.

Prefer insulated bags

Housewives were given their choice: Which would they prefer for ice cream, an insulated bag or an insulated package? By a margin of more than two to one, the women voted for the insulated bag, according to a survey conducted for the Borden Co. by the Young & Rubicam advertising agency among 1,000 ice-cream-buying housewives in the Boston metropolitan area.

Among housewives who have had experience with both types of insulated containers, 44% preferred insulated bags, 21% insulated packages and 4% plain packages, while 30% had no preference.

The survey also pointed out that proximity of the consumer's home to the store was an over-all factor. It was found that 60% of the housewives surveyed lived within five minutes of the ice-cream-selling store—and over half of these usually take ice cream home in a plain package. Only a small percentage had difficulty in bringing ice cream home before it softened. But an insulated container of some type is preferred by supermarket customers and those living some distance from the store.

Statistically, 71% of supermarket customers usually buy ice cream in an insulated bag, 16% in an insulated package, and 12% in plain packages. Plain packages are taken home by 71% of drug-store customers, insulated bags by 21%, insulated packages by 6%.

Fish with a flourish

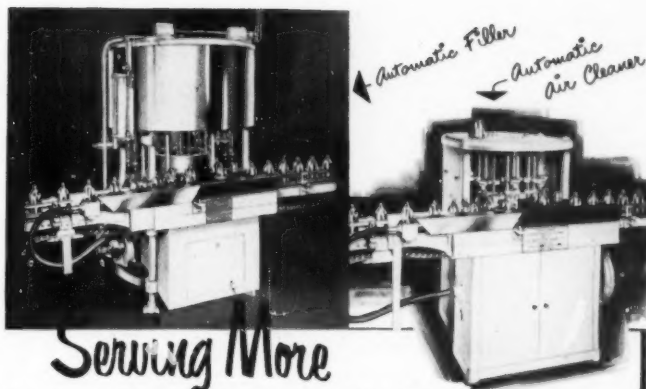
(This article continued from page 118) channels into a direct-buying deal. This trend was a decisive factor in the creation of the new Freezer-Pak line. Each 5-lb. package, covered with the large waxed-paper overwrap, contains six cellophane-wrapped meal portions of frozen fish fillets, consisting of three servings each.

The Blue Water Regular-Pak consists of a standard 5-lb. package of random-weight cellophane-wrapped fillets. Used by the institutional trade and bulk retail trade, it is generally recognized as the standard pack in the industry. White one-piece cartons, cellophane overwrapped, are used in conjunction with a white label printed in red, white and blue. The labels, printed on both sides, are not adhered to the boxes, but held in place by the overwrap. This permits them to function in a dual role, with the identification material printed on one side and the reverse side carrying general information on the frozen fillets, supplemented by cooking hints.

The Custom-Pak, a strictly institutional pack in 10-lb. cartons, follows the same general design treatment as the Regular-Pak. However, two-piece folding boxes are used, with the trademark and related information imprinted on the cover. The boxes are not cellophane overwrapped. The fillets in this pack are graded to count size, accomplishing the same purpose as size grading or count in shrimp, offering the uniformity long asked for by the institutional trade.

The Portion-Pak of breaded, uncooked fish is designed to give the institutional trade for the first time absolute portion control in three ways—size dimensions, weight and cost per unit. This line will have wrappers printed in red and blue to match the basic design of the other two institutional packs. Test marketing of the Portion-Pak in two areas has proved "amazingly successful," according to Mr. Gruber.

CREDITS: Waxed-paper overwraps and inner cartons for 1-lb. Consumer-Paks, Marathon Corp., Menasha, Wis. Inner cartons for 5- and 10-lb. Regular-Paks and Custom-Paks and 5-lb. Freezer-Paks, Manchester Boxes, Ltd., 100 Sterling Rd., Toronto, Ont., Canada. Printed cartons for Portion-Paks, institutional size, Manchester Paper Boxes, Ltd., and Marathon Corp. Corrugated master shipping containers, Hinde & Dauch, Sandusky, Ohio.



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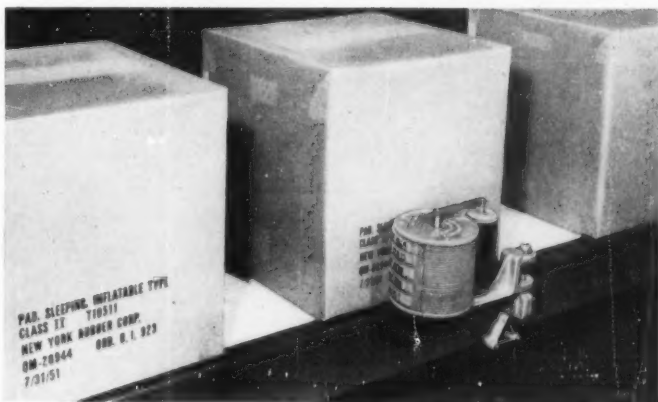
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PACKMATIC MODEL 16: Excellent condition for packaging 1 1/2 and 2 1/2 cartons measuring approximately 1 1/4" x 3 1/4" x 6" and 2 1/2" x 4" x 7" respectively, with combined top and bottom carton sealer complete with 4-pocket Volumetric filler and automatic carton feed, drives and motors. Approximate weight 7,000 lbs. Attractive price. Write for additional information. Box 578, Modern Packaging.

FOR SALE: Immediate delivery; never used, in original crate. 1-Roto Polyethylene Bag making machine (PO-5) equipped as you want it. New machine guarantee. Brand new machine we are about to take delivery on. Also, 1-Ameron High Speed Rotary bag sealing unit with converter. New, never used. H. H. Mink Bag Co., Inc., 40 Brown's Race, Rochester, N. Y.

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WANTED: Cameron Slitter, Packaging Line, Labeler, Capper, and Mixer. Box 572, Modern Packaging.

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SALESMEN—AGENTS—MANUFACTURERS REPRESENTATIVES: We are converters of all flexible films, specializing in Rotogravure printing, lamination and heatset bag making. Engineering and design department to back up all salesmen and assure superior packages to all customers. Our work is highest quality with fast deliveries and highly competitive prices. Recent plant expansion enables us to offer exclusive territories to experienced men with proven ability and references. No objection to non-competitive lines. All replies in strict confidence. Write all details including preferred territory to: Printon Corporation, 304 East 23rd Street, New York 10, N. Y.

EXPERIENCED PACKAGING COMPREHENSIVE MAN WANTED: Preferably strong on lettering side. Position permanent with well known industrial design organization. Box 580, Modern Packaging.

WANTED

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COATINGS EXPERIENCE: Specialist needed in field of protective coatings for food and related products. Fundamental training in Organic Chemistry and packaging experience is desirable. Large midwestern company offers permanent research position with unusual opportunity to the right person. Submit personal and professional qualifications. Box 583, Modern Packaging.

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Salesman for Middle & South Atlantic region. Sure, we value experience and results! That's why we offer top salary plus travel expenses, commensurate with your qualifications.

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If you're our man, please write, giving full details, background, experience and salary desired.

Paramount Paper Products Co., Inc., Hamilton Street at 19th, Philadelphia 30, Pa.

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MAN WANTED: For flexographic or aniline printing, cellophane and plastic bag making for Mid-Western bag converter. Box 585, Modern Packaging.

PACKAGE DESIGNER

We want a man with a creative flair, who can direct other designers and function as the key man on a design team. Marketing and merchandising knowledge is important. Experience in all forms of packaging for food, hard goods, drug, soft goods, housewares and beverages important but not essential. Must have administrative abilities and be capable at expediting. Salary open.

Lippincott & Margulies, Inc., 500 Fifth Avenue, New York, N. Y.

SITUATIONS WANTED

PRODUCTION MANAGER: Man age 45, with years of experience in production, management, packaging, packaging films, automatic packaging machinery and plant layout. Also has knowledge of production and packaging problems pertaining to bakeries, candies, vegetables and other allied products. Desires position with reliable firm. Will relocate if necessary. Complete resume on request. Box 582, Modern Packaging.

ROTOGRAVURE ENGINEER AND ENGRAVER: College graduate experienced in all phases of cylinder production, designing special machinery, research, supervision, training personnel and plant installation. Desires position in roto gravure field. Box 590, Modern Packaging.

PRODUCTION MANAGER: Ten year executive background in packaging and plant management, desire top level connection with aggressive firm packaging for the consumer trade. Can handle all phases production-cost control, quality standards, purchasing, coordination, personnel relations. Would consider newer organization with stock or other financial interest as part of income. Willing to relocate for right proposition. Box 586, Modern Packaging.

SALESMAN-SALES MANAGER: Desires connection with firm in packaging field. Six years experience in packaging machinery sales and management. Will relocate. Can assume responsibility for area coverage, correspondence, etc. Available September 1. Compensation salary or drawing against commission. Box 591, Modern Packaging.

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PLASTIC SCRAP AND REJECTS IN ANY FORM: Cellulose, Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top price for clean colored and printed scrap in any quantity. Box 561, Modern Packaging.

SERVICES WANTED: Desire services of individual or concern now selling inks, or other chemical supplies to paper converters, fabricators and units to handle coating and adhesive materials. Standard products which are in general use or will develop special materials for particular needs. Box 588, Modern Packaging.

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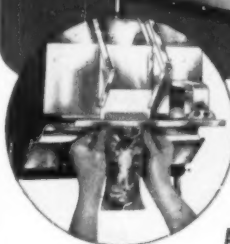
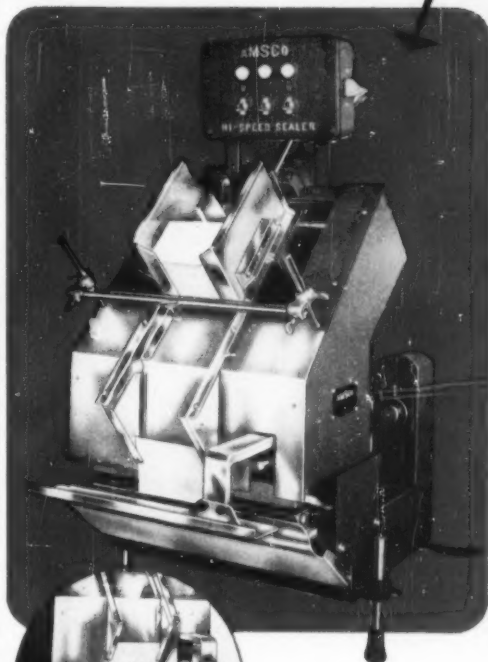
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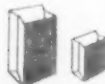
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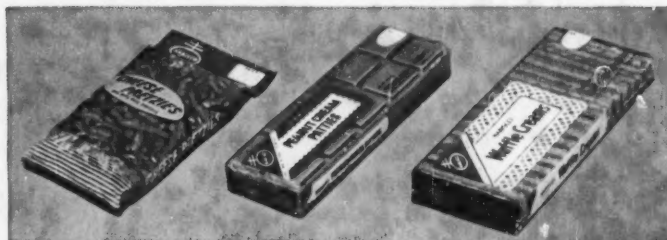


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